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The Halford Oration.¹

1803-1876.

THE PASSING OF THE TASMANIAN RACE.

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Far from the clash of arms, the just, kind earth
Pours out before him plentiful reward;
Peace without fear, a life of solid truth,
Full of a thousand pleasures—open fields,
Free air and moving waters, cliffs and woods.

VIRGIL.

In accepting the invitation to deliver this, the sixth Halford Oration, I am deeply sensible both of the honour paid me and of the responsibility I have assumed.

Tonight it is proposed to present some views as to the origin of the Tasmanian race, a brief survey

¹ Delivered at the Institute of Anatomy, Canberra, November 23, 1933.

of the habits and physical characteristics of its people, and some account of those contacts with our civilization that were ultimately to lead to their extinction.

In Tasmania the principal sources for such a study are the archives of the Chief Secretary's Department, the great osteological collection of the Tasmanian Museum and the stone implements found on the native camping grounds. Much remains for the anatomist to do; otherwise it is difficult to break new ground, the remaining material having been very thoroughly examined by competent observers. Yet from time to time discoveries are made, slight in themselves, but adding to our knowledge of the race. Evidence, too, is to be found in the journals of early navigators, hitherto unpublished. (1) (1a)

Among the contributions to medical literature of George Britton Halford, no less than seven are concerned with subjects of anthropological interest.

One on the crania of the natives of Victoria⁽²⁾ is intimately concerned with tonight's oration. This treatise describes briefly the racial characteristics of a series of crania drawn to scale. It may be said to be the first of that long series of works upon Australian anthropology for which the Melbourne School of Medicine has been responsible. The fortunate chance that took Sir Baldwin Spencer with the Horn expedition to Central Australia in 1894 changed the whole trend of his life's work.⁽³⁾ This was to bring him into contact with F. J. Gillen and inaugurate their lifelong friendship and collaboration. It is no exaggeration to say that the publishing of their work on the natives of Central Australia was the beginning of a new era in anthropology.

The coming of R. J. A. Berry in 1904 brought new life to the anatomy school. After a reorganization of this department he turned to the systematic study of the osteology of the aborigines of south-eastern Australia. To obtain material he enlisted the aid of his students. To us Tasmanians he stressed the importance of obtaining crania and other remains before the opportunity should be lost for all time. A foray by three of us on a burial ground on my father's estate at Oyster Cove was most successful, the disintegrated remains of some twelve bodies being discovered. Other crania in Tasmanian collections, hitherto undescribed, were also located and later fully examined.

At the University museum itself an extensive collection was gathered together and the then new method of investigation by the dioptograph was adopted. From 1910 to the outbreak of war Professor Berry, W. G. Robertson, Büchner, Cross and others^{(4) (5) (6) (7) (8) (9) (10)} were responsible for the publication in Melbourne and Edinburgh of a notable series of works on the cranial characteristics of the Tasmanian and Australian native races. At this period, too, working with the same men, Sir Colin MacKenzie must have had the inspiration that was to carry him through years of original anatomical research to the foundation and development of this institute of anatomy at the national capital. With the return of Dr. Berry to England our school welcomed Dr. F. Wood Jones as its head. His years at the University of Adelaide had enhanced a reputation already international. To his great anatomical knowledge he allied an intense love of field work, which he had been able to indulge whilst in South Australia. Working primarily with the material at the Adelaide Museum, he has paid much attention to Tasmanian crania,^{(11) (12)} and now, with Dr. J. Wunderly, is engaged in a detailed survey of such material in various Australian collections.

Is there any other Australian school of medicine that can show such a tradition of anthropological work, and is it too much to say that the influence of George Britton Halford was responsible for its inception?

Origin and Method of Migration of the Tasmanians.

As regards the relationship of the Tasmanians to the natives of Australia, we can say at once that they were a completely different race. It is recognized that in certain of the Pacific Islands there were originally inhabitants of a small negroid type and possessing a most primitive culture known as negritos. These, with a type of larger stature, also woolly-haired, speaking a language recognized as Papuan, whom we may class as Macro-Negritos, were alike dispossessed by Melanesians, akin to the latter group physically and sometimes only to be differentiated by their language. The Tasmanians may be definitely classified as Macro-Negritos, and in any attempt to go further than we find a great variety of opinion. R. H. Pulleine,⁽¹³⁾ in a masterly address, concludes, after careful consideration, that they may be regarded as having a Negrito-Papuan-Melanesian origin. Basedow regards them as being a true insular type of the Australian race. Berry,⁽⁶⁾ with his group from the Melbourne school, after detailed research, concludes that the Tasmanians and Australians are descendants of a common late Pliocene or early Quaternary stock which he calls, with Sergi, *Homo Tasmaniensis*. This race had a wide range of distribution in the islands of the Pacific Ocean. The Tasmanian he regards as the almost unchanged offspring of this type, but evolved on his own lines and in his own way. The Australian he assumes to be the result of a cross between this group and some other unknown race (Polynesian or Dravidian) and therefore a hybrid. There is no evidence or reason to believe that the Tasmanian aboriginal was autochthonous.

Sir Douglas Mawson has estimated the formation of Bass Strait as having taken place 50,000 years ago, whilst Sir Edgeworth David places the period at anywhere between 20,000 and 100,000 years.⁽¹⁴⁾ Speaking generally, we may say there is no positive evidence as to the existence of man in Tasmania at any remote geological period. The long land connexion between Malaya and Tasmania is broken, notably at Torres and Bass Straits. Soundings show that a subsidence of thirty fathoms would expose a land bridge between Victoria and Tasmania. A similar subsidence of forty to one hundred fathoms would not only join Australia and New Guinea, but expose land continuously until regions as far apart as Malaya and the Philippines were reached. Under such conditions, then, primitive man could have slowly journeyed by land from southern Asia or Melanesia to Tasmania. There is evidence as to the possibility of land bridges from the Antarctic Continent,⁽¹⁵⁾ but nothing to suggest the arrival of *Homo Tasmaniensis* by such a route. After the formation of Bass Strait entry to Tasmania could only be by canoe or raft. Pulleine considers that such a migration took place. The rafts of the Tasmanians were at best logs or bundles of stringy bark bound together and propelled by poles. Lieutenant Gunn⁽¹⁶⁾ describes one on Maria Island which he estimated would carry four men sixteen to twenty miles. Rodman⁽¹⁷⁾ tells

us of the great technical skill enlisted for the famous canoe voyages of the Polynesians. A most carefully selected crew with knowledge of canoe sailing, navigation, weather conditions, fishing *et cetera*, alone enabled these voyages to be successfully accomplished. The Tasmanian mentally could never approach such standards, and if he was unfitted to attempt the tropic seas, with their warm trade winds, how much less could one expect him to force his canoe through the driving westerly gales of our high southern latitudes?

It seems to me that the migration of the Tasmanians must have been an overland one from Australia or an infiltration from island to island across Bass Strait in canoes or rafts of higher sea-going quality than those we know of.

Physical Characteristics of the Race.

The records of the French navigators were unusually accurate and full. Dumoutier, during the second voyage of Dumont D'Urville (1837-1840), whilst at Hobart Town, modelled the busts of six Tasmanians, four from nature and two from models already existing. His description of their features is perhaps the most faithful we have. He describes the face as massive, with sunken eyes, the nose voluminous and about one-quarter the height of the whole face, a large mouth with moderately thick lips and large teeth. The skin he describes as black and the hair as woolly. Agreement has been universal in regard to the hair. In its colour it was black, cut short or shaved to the scalp in the case of the women. The men wore theirs in long ringlets, plastered with grease and red ochre, so that their locks resembled a bunch of painted ropes. Specimens of hair are not rare, but only one ringlet remains of the type just described. It is about seven inches in length, of corkscrew type, and well mixed with red ochre. It lies in our museum, after having been cut from the head of a warrior passing on his way to Hobart Town about 1834, under escort of G. A. Robinson.

Physically the Tasmanian on the whole appears to have been slightly built, with slender legs and arms, associated with a well proportioned frame. La Place referred to their lanky limbs and inflated stomachs. Kelly⁽¹⁸⁾ described men near Port Davey as being six feet in height, with large stomachs and very thin legs and arms. Certain femora and other long bones in the Tasmanian Museum suggest that individual natives were not only tall, but of well marked muscular development. Sir William Turner⁽¹⁹⁾ writes of the hair:

In the Australian the hair is black, fairly long, wavy and almost straight. The shaft is ovoid, relatively thick, and not flattened as is the case with the short, woolly, frizzed, fine hair of the Tasmanians, in whom the hair, though sometimes stained red with ochre or even bleached with lime, is usually described as black, though in one instance it was stated as being of a light golden brown colour.

The last statement is confirmed by the finding of one or two fine rings of bronze-coloured hair on the skull of a Tasmanian child by myself.⁽²⁰⁾ It is

known that well formed beards and moustaches were found in both races.

The Craniology of the Tasmanians.

Dr. J. G. Garson⁽²¹⁾ has described in considerable detail the osteology of the Tasmanians. At this date (1898) four complete skeletons, fifty-five adult and five immature crania contained in various English and European museums were believed to be all the material that remained to be described, with the exception of that in the Tasmanian Museum.

Dr. Topinard,⁽²²⁾ describing the crania in the Paris collection, regarded the following features as distinctive of the Tasmanians: A head, globular in form and subdolichocephalic, broadening rapidly from before backwards; a keeled or carinate aspect of the vault; theinion poorly developed, with the superciliary ridges and glabella strongly marked and overhanging the orbit. Sir William Turner (*ibidem*) described the ten Tasmanian crania in the Edinburgh museums, two of which, I note, were made available by members of my family. One of these, Sir William states to be the skull of William Lanne, the last Tasmanian male. Comparing them with some sixty-nine skulls in other collections, he concludes that the keeling of the vault and the median groove along the sagittal suture, with the prominent parietal eminences are distinctively Tasmanian features. For this series the cephalic index was 72.7 and the average capacity 1,200 to 1,300 cubic centimetres. The mean of the three largest was 1,448 cubic centimetres, which approaches that of European man. Taken as a whole, the Tasmanian skulls fall into the microcephalic group. The facial characteristics are of interest, the massive development of the glabella, superciliary ridges and the depression of the nasion being very constant. The nares are wide and the orbits show a low vertical diameter. It is fitting to note here that the Melbourne school has within recent months undertaken a detailed survey of Tasmanian crania. As a result we look forward to work on the dentition and palate comparable to that done by Dr. Campbell for the Australian race.^(22a)

Manners and Customs.

We rely on Peron's description very largely when describing the primitive methods of feeding and living of the Tasmanians. Their food ordinarily was the flesh of kangaroo or opossum, varied when on the sea coast by the crayfish and various forms of shell fish. The ordinary scale fish was never eaten, and when offered to them was rejected with disgust. Native honey and crushed fern roots provided some variety of food. One or two kangaroo skins were worn by men and women across the chest or back, but did not serve as clothes. In the case of the women, they were of use in carrying the children. The custom of smearing the body with animal fat and then applying red or yellow ochre and charcoal contributed to maintaining their warmth. The various tribes were very mobile and

moved by regular routes about their territory. Their habitations varied with their location and the season of the year. Ordinarily, all they would require was a lean-to of slabs of bark to break the wind, or they even camped in the open with fires before and behind them. These not only gave warmth, but a sense of security, as they were very timid and reluctant to move after darkness fell. Tobin⁽²³⁾ describes in detail a much more complex habitation at Adventure Bay, which was used by the officers as a mess hut, and Bligh speaks of it as accommodating six people, and in its form a perfect beehive. R. H. Pulleine (*ibidem*) and later R. W. Legge⁽²⁴⁾ have described in considerable detail remains of semi-permanent habitations on the northern portions of the west coast. These are circular depressions, the largest some twelve feet in diameter and surrounded by a bank of shells two feet six inches in height. Digging in the centre revealed charred black sand, free from shells and bones, and near by three skulls were found between 1921 and 1924. Similar remains have been described further south, at Temma and Mainwaring's Inlet, and also at the Bay of Fires. We may assume that in summer on the west coast the ti-tree alone would be sufficient shelter, but in winter some more elaborate habitation would be essential. Their weapons were primitive. For intertribal fighting and the chase they had the spear and waddy; for other needs, primitive stone implements.

Their spears were long and tapering, with a thicker end towards the point, and made from Melaleuca (ti-tree), in length from ten to fourteen feet. No spear-thrower was known, and after being balanced on the palm of the hand the spears were darted with a spinning motion. The waddy, their other weapon, was a throwing stick about two feet long. This was round at the point and was thrown with a rotary motion. They knew nothing of the boomerang and shield. Space will allow me to indicate only that there is a very extensive literature relating to their lithic culture. It had not evolved beyond the primitive paleolithic stage. The ground axe or stone spear-head was unknown. Their ordinary wants were met by various forms of chipped stone implements, which are still found on their camping grounds. The stone in use was brought as a rule great distances from their quarries, which were at Split Rock (Great Lake), Mount Communication and elsewhere. It is customary to classify these implements into such forms as hand axes, scrapers, graters and duck-bill points. They were used for climbing trees, manufacturing weapons, preparing their food and shaving the hair and beard. Mention must be made of the uses to which large water-worn pebbles were put. They were employed as ochre mills and pounders for shell fish. The women carried woven grass baskets containing their few possessions. Necklaces were made from elenchus shells, which were polished by being smoked in the fire and rubbed with fat, after which they were perforated by the canine teeth and threaded

on kangaroo tendons. At other times twisted tendons reddened with ochre, or the mandible or skull of some deceased child or relative, were suspended round the neck. These, it is said, served as charms against sickness as well as for ornamentation. This custom, which is of great cultural interest, was employed by certain Papuan tribes. One of the treasures of the Tasmanian Museum is such a group of dried aboriginal bones, found in a cave overlooking St. Mary's, which, after description,⁽²⁵⁾ was presented by R. H. Pulleine. Much might be written of the disposal of their dead. Peron⁽²⁶⁾ and Calder⁽²⁷⁾ give details of the obsequies and method of disposal of the ashes. The custom was in certain cases immediately after death to bind the arms and legs on to the body in a position of strong flexion. This was effected by tough grass fibres. The body was then either placed in a hollow tree to disintegrate or was incinerated. In our large osteological collection in the Tasmanian Museum only two skulls show any trace of fire, and that of so slight a degree as to suggest exposure to a grass or bush fire many years after death. In 1927 human remains were found at Sandford, partially incinerated. These were described by myself in detail two months ago before the Royal Society of Tasmania. As this is only the second instance recorded of the finding of incinerated bones, it is reasonable to conclude that ordinarily the bodies were disposed of by leaving them at some secluded place without any attempt to destroy them by fire.

First Contacts with the White Settlers.

Risdon was the scene of the great tragedy that ushered in the long conflict between the two races. On May 3, 1804, there was a clash between the Royal Marines and some hundred of aborigines. The latter, it was found afterwards, were merely hunting, but in the *mêlée* sustained some forty casualties, when they retired in confusion. The Rev. R. Knopwood, in his diary⁽²⁸⁾ records a note from his friend J. Mountgarrett (surgeon):

I beg to refer you to Mr. Moore for the particulars of an attack the natives made on the camp today, and I have every reason to think that it was premeditated, as their numbers far exceed any we have ever heard of. As you express a wish to be acquainted with some of the natives, of you will done with me tomorrow you will oblige me by X'ening, a fine native boy whom I have, unfortunately, poor boy, his father and mother were both killed. He is about two years old. I have likewise the body of a man who was killed. If Mr. Bowden (surgeon) wishes to see him dissected, I will be glad to see him with you tomorrow. The number of natives were not less than 500 to 600.

This native boy made at least one voyage to England with Mr. R. Q. Kermodé, and died in early adult life of pulmonary tuberculosis. From this date his diary notes increasing hostility and loss of life on both sides, yet when parties of natives, which included women and children, were encountered at Brown's River and the Huon, the meeting was quite friendly. Conflict, however, was now to be the rule, and to this the mentality of the Tasmanians contributed. They were fickle and

unstable, and some unknown cause of offence would in a moment change their attitude from friendship to open hostility. West tells of a party of thirty-six from South Arm who were induced by a friendly native woman to come to Hobart Town, where they remained for some weeks. Unsettled by some worthless whites, they returned to the bush, and on attempting to reach Bruny Island they were all drowned except one woman. After this the natives were no more seen in Hobart Town. During the twenties the conflict was well established and four principal tribes were distinguished, the Oyster Bay, Big River, Stony Creek, and Western. Each had its own distinct dialect and well established boundaries. There were other and smaller tribes apart from these. After the execution in 1820 of two Tasmanians, Jack and Dick, for the murder of a stockman, unrelenting warfare set in. The natives developed remarkable skill in effecting surprise attacks. After long watching they would take the occupants of some isolated farm by surprise and then, after massacre and burning, pass rapidly to another far distant part of the island and repeat the process. To meet such tactics Governor Arthur issued proclamations to the tribes which they were unable to understand, and organized roving parties to pursue them and bring them in. The success of these parties, however, was so limited that he decided to mobilize all his forces finally to suppress the natives.

The Black Line.

From October 7 to November 26, 1830, a sustained offensive by soldiers and settlers was in progress.^(20a) A line was formed across the settled portion of the midlands and north-eastern part of Tasmania and slowly moved forward, driving the natives before it. The idea was eventually to pen them on to Forrester's Peninsula. In the dense bush country it was almost impossible to maintain contact, and at night the aborigines slipped through the cordon and escaped. As a result of this black war, after weeks of martial law and the expenditure of £30,000, all that was attained was the capture of two natives, while our casualties were one wounded soldier. The various phases of these long years of conflict have been described in much detail by J. Bonwick⁽²⁰⁾ and J. E. Calder. Both were careful historians, the former a schoolmaster, the latter an experienced surveyor and a contemporary of men who took active part in these events. Bonwick concludes that the white man oppressed and systematically exterminated the native. Calder, on the other hand, points out that the latter had much the better of this warfare. He states: "Even in the days of their decay (chiefly from natural causes) they took life five times as often as it was inflicted on themselves", and he estimates that of an original native population of 7,000, not more than 500 were killed in these conflicts. Now when the need was greatest, George Augustus Robinson offered his services to the Government to conciliate and bring in the tribes.

The Man and the Hour.

This great man was in 1828 appointed to the charge of the native settlement on Bruny Island. Its nucleus had been some blacks of both sexes, members of the Bruny tribe, who had for many years lived in contact with the bay whalers. Hither were sent such natives as the roving parties were able to capture. Robinson himself had been a master builder at Hobart Town, and felt that he should dedicate himself to the mission of conciliating the tribes. He also stated that, being married and having three children, the proposed salary of £50 *per annum* would not be sufficient for his needs; he accepted the position at this salary, however. A man of courage and resource, with unlimited belief in himself, he was well fitted for the part he had assumed. In the years before him he was to range all over the island with his mission of friendly blacks, often at the risk of his life and with immense physical exertion. Yet his dispatches (as he termed them) were always full of courage and hope, and he moved persistently on, until at long last the task was successfully accomplished. He first mastered the language and dialects of his charges and studied their habits and customs; then only did he set out to establish contact with the hostile tribes. In May, 1830, with a party of 18 (15 of whom were blacks), he reached Research Bay by boat; then he travelled overland to Port Davey, where contact was made with the local tribes. After a stay of some weeks he undertook an extraordinarily difficult journey north and west across the island, visiting various tribes, until, having covered over 1,000 miles, he arrived at Emu Bay, his party having somehow supported themselves on the cold, lifeless, and heavily timbered country as they went. After a preliminary visit to the east coast, being now ready for serious business, he returned to this latter area and succeeded in persuading thirteen natives to go with him to Swan Island. Here, at his headquarters, they stayed while he worked the islands of Bass Strait, endeavouring to dispossess sealers of their native women. At the end of 1831, on the central plateau of the island, he made his most sensational capture of the Big River and Oyster Bay tribes, both implacable enemies of the white race. His own natives had feared to approach them, and he himself was met by levelled spears. A few words from him, however, in their own tongue, sufficed. His poise and courage impressed them and the danger was passed. By night they had agreed to go with him to Hobart Town, and thither they proceeded, hunting as they went, and with their pack of one hundred dogs were soon camped around Robinson's home just off Elizabeth Street. This band of natives, twenty-six in all, representing sixteen men, nine women, and one child, had for years terrorized a large part of the island. Their subjugation left the way clear for the last long difficult task, the bringing in of the western tribes, who inhabited the northern strip of the west coast from Sandy Cape to the islands adjacent to Cape Grim. After surmounting many

difficulties near the Arthur River and being in great danger of death, he persuaded these natives, twenty-seven in number, of whom four were children, to go with him to Cape Grim, forty miles away. From here a sealer's boat ferried them to Hunter's Islands, where was abundance of penguins and sea-birds' eggs, of which they were very fond. Calder states that a quarter of a century before, the numbers of natives in this western area would probably have been fifty times greater than those Robinson captured. At Hunter's Islands, epidemic disease, probably of a bronchial type, now attacked them, and within a fortnight of their landing

Flinders Island, and to this establishment Robinson was appointed Commandant. Some years later a family of four aborigines gave themselves up at Circular Head. These were the last of the race to be at large in Tasmania.

Exile on the Islands of Bass Strait.

By the end of 1830 some fifty-six natives had been placed on Swan Island. The island, although only one and a half miles in length, flat and with brackish water, made a good temporary shelter, and the natives remained healthy. The Government, however, searching for a more suitable permanent



FIGURE I.

G. A. Robinson with Tasmanian natives. (From a contemporary picture by Benjamin Duterreau.)

thirteen were dead. The tame blacks apparently had some immunity, as none of them died. Robinson reports:

He regrets to state the natives have been subjected to a severe mortality, and out of 27 of those last removed 13 are defunct. This dire malady had every appearance of being an epidemic, the patient rarely living more than 48 hours after being attacked. All ages and sexes fell victims to its ravages and then gradually expired in a state of delirium. They had been in apparent health when brought to the settlement.

Space will not allow me to follow in detail his further expeditions, but on February 3, 1835, he reported "the entire aboriginal population is now accounted for". Whilst this is not correct, some 236 Tasmanian natives had been concentrated at

site, in April, 1831, removed them to Vanstittart or Gun Carriage Island. A more unsuitable choice it would have been hard to discover, the island being small, exposed and windswept, with practically no game upon it. Shortage of Government rations was relieved only when the whole party was at starvation point. Here, in utter apathy, the natives existed under Sergeant Wyght and a small military guard, and many died before it was decided to remove them to Great or Flinders Island. This island was large, with ample game, and was well fitted as a sanctuary for the tribes, had they been allowed freedom to range and lead their own lives. This was not to be, and the move to "The Lagoons" at its southern end was disastrous. The situation

was completely unsuitable, owing to exposure to the prevailing westerly winds and great scarcity of fresh water. Primitive wattle and daub huts were constructed, without windows or chimneys, and after much unrest and an alleged uprising fifteen native men were marooned on a rock and when rescued by the *Tamar* (schooner) were almost dying. Their story was that they had been placed there so that the soldiers might have access to their women. To restore order, Lieutenant Darling, of the 65th Regiment, assumed control in March, 1832. He banished all sealers from the island, provided ample water by digging, and brought about peace and

among the archives have failed to throw much light on the pathology of their closing years. The climate was certainly less severe than that experienced by the tribes on the western coast or central plateau whilst at large. Their rations were sufficient, although salt meat they abhorred, and could be supplemented by hunting the kangaroo, the taking of shell fish, and in certain seasons the mutton-bird. The wearing of clothing must be counted as strongly predisposing them to pulmonary diseases, especially with the substitution of a sedentary life for their old nomadic existence. Three main factors, however, apply: first, the incidence of epidemic catarrh,

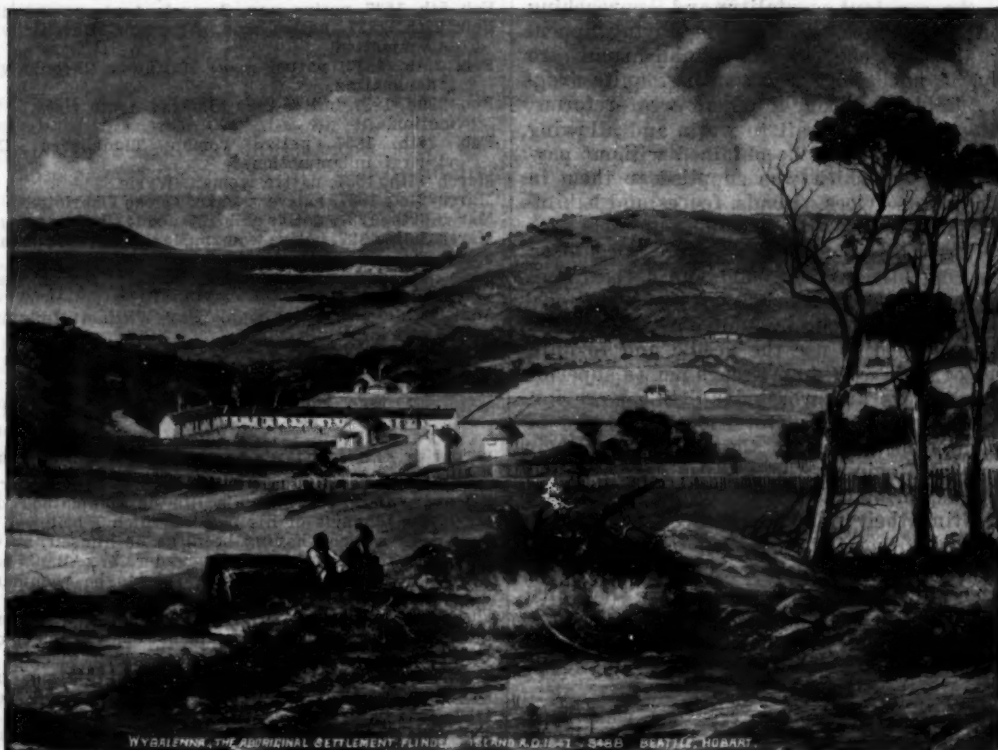


FIGURE II.

Wybalenna, the aboriginal settlement, Flinders Island, A.D. 1847. (Photographed by Beattie, Hobart.)

good government. During his term the settlement was moved some twelve miles up the west coast to Pea Jacket Point, and was called Wybalenna. This was a better situation and was protected by thick ti-tree scrub from prevailing westerly gales. Robinson proceeded from Hunter's Islands by the *Emerald* with the survivors of the Western tribe, and in November, 1835, took over command of the settlement. He was eagerly welcomed by the natives and commenced at once to make plans to improve their physical and mental conditions. His first work was to check the unremitting mortality and decline in numbers at the settlement. The cause of this mortality is not clear. Many hours of work

to which they had no acquired immunity, as, for example, at Hunter's Islands, where thirteen of the newly captured blacks died and none of Robinson's party; secondly, melancholy and apathy, due to nostalgia, associated with want of proper employment; and, lastly, the fact that owing to disparity of numbers between the sexes and prostitution of their women by sealers and others there was little or no natural increase among them. It would be difficult to over-estimate the effects of this home sickness, which was accentuated by the fact that on fine days, from high ground, it was possible to see on the horizon the shores of Van Diemen's Land. It was their custom day by day to sit for many

hours gazing in the direction of their homeland. Previously to the capture of the natives and their removal to Flinders Island, competent observers had stressed the great mortality among the tribes, due probably to epidemic catarrh which, during the twenties and thirties, had swept the island. During these years, too, when there was constant hostility between the tribes, it was noted that the natural increase of the natives had fallen very remarkably. The necessary association of members of these hostile tribes at the settlement did not, at any rate at first, lead to harmony or intermarriage. Report after report of successive commandants at Flinders Island emphasized the decrease in numbers, the constant mortality, and approaching extinction of the race. The accompanying appendices by the surgeons to the establishment are unhappily, if not altogether wanting, quite fragmentary. Robinson brought about great reforms, making it obligatory for all to work, and allowing nothing (except food) to be obtained without payment in currency, which was supplied to them in return for their services. Roads, fences and habitations were built under the directions of their own leaders, King William and King George. Organized games and competitions were held, and natives were detailed as shepherds, boatmen, cooks and surgeons' assistants. The women, in addition to domestic work, were trained to use the needle and to knit. Specimens of their work in a French net (a superior art) with d'oyleys and worsted knitting were forwarded to the Lieutenant-Governor. In spite of greater contentment, due to these measures, their health caused Robinson the gravest concern, and he writes deploring the mortality amongst them and suggesting their removal to the coast of New Holland, stating that if this were not done the race would be extinct within a very short space of time. It is interesting to note here that in the third report, 1840, of the Aborigines' Protection Society, there was strong opposition to the methods pursued by Mr. Robinson at Flinders Island. This report includes the statement:

Your Committee cannot help regretting, while they apprehend the speedy extinction of the once simple, inoffensive islanders of Van Diemen's Land, and connect that event with the process, so efficient for its accomplishment, pursued at Flinders Island, that from the first a system had not been applied more suitable to the habits of a roving people, instead of the highly artificial one whose details have been referred to.

I am indebted to Miss Leeson (Mitchell librarian) for pointing out this passage to me, and feel that the comment, whilst correct, was hardly fair to Robinson's great efforts to ameliorate their lot. It was his duty to carry out a policy imposed upon him by the Lieutenant-Governor of Van Diemen's Land.

In 1834, when the settlement was visited by Backhouse and Walker,⁽³¹⁾ there were twenty cottages for the natives, eleven of which were without occupants, the total number then surviving being one hundred and eleven. Within the six months preceding June 24, 1837, sixteen deaths had

occurred. To combat this mortality Robinson had caused eight new brick cottages to be built to replace some of their hovels, and these were supplied with wooden floors, for which the natives had asked. Attached is a report of Surgeon A. Austin, in which are the names of those who had died. The cause of death is in some instances stated, and it is reprinted in its entirety.

Commandant's Office,
Flinders Island,
June 24th, 1837.

Dec. 24th, 1836, native youth, George.
Dec. 30th, 1836, native man, Nimrod.
Jan. 28th, 1837, native man, Columbus: Chronic inflammation.
Jan. 28th, 1837, native woman, Puepdar.
Feb. 5th, 1837, native man, Samuel: Acute pneumonia.
Feb. 20th, 1837, native man, Algernon: Chronic visceral inflammation.
Feb. 25th, 1837, native man, Matthew: Chronic visceral inflammation.
Feb. 22nd, 1837, native man, Omega: Acute visceral inflammation.
Feb. 29th, 1837, native woman, Tindeburru: Chronic visceral inflammation.
March 16th, 1837, native woman, Wyrie.
March 21st, 1837, native woman, Queen Charlotte.
March 30th, 1837, native child, Manoon: Chronic pneumonia.
March 30th, 1837, native woman, Maria: Chronic pneumonia.
March 30th, 1837, female infant.
June 8th, 1837, native man, Daniel: Extreme general debility.
June 20th, 1837, native man, King William: Inflammation of the intestines.

The report of the *post mortem* examination of the last named is as follows:

Flinders Island,
June 21st, 1837.

REPORT OF KING WILLIAM'S DISEASE, DEATH AND POST MORTEM.

For several days previous to his being attacked with the disease which cost him his life he complained of pain about the left side of his face to which I believed him to have been subject, having been, as he himself, as well as other aborigines, informed me, under Mr. Allan's care for a similar attack. Considering this to be rheumatism, I directed his wife to foment his face frequently, which she did several times in my presence, and gave him some aperient medicine, which treatment removed his complaint. On the evening of Monday last, the 19th, about 6 o'clock p.m., I saw him when he was, as he informed me and Constable Lambert who happened to be present, perfectly free from pain. His bowels were regularly open, having had two evacuations during that day. He was at that time laughing and playing with his wife and others. About 5 hours afterwards, that is about 11 o'clock p.m., I was suddenly called to see him. I found him in the most excruciating agony. On examination I found all the symptoms of inflammation of the intestines, small pulse, extreme tenderness of the abdomen (so great that he would not at first suffer me to touch it), great heat of skin and occasional vomiting. I immediately bled him largely, applied fomentations to the abdomen, which were continued for several hours, and administered a large emollient and aperient enema and some castor oil. I remained with him superintending the continued use of the fomentations until daylight next morning, having bled him twice during the night, having taken in all about 50 ounces of blood, producing syncope in a slight degree on both occasions without the slightest alleviation of the symptoms. Shortly after daylight I applied a large blister to the abdomen and pit of the stomach and subsequently bled him to the extent of 24 ounces more, the pulse rising as is normal in these cases with the abstraction of blood, and directed preparations to be made for administering another enema. Within the interim the man expired. This was about 11 o'clock a.m., twelve

hours from the time of my first seeing him. For the first 6 or 7 hours he was perfectly sensible and his cries of "Minatti" piteous. Upon examining the body after death, I found the whole viscera of the abdomen except the kidneys and urinary bladder more or less in a state of inflammation, the lower part of the stomach, the two first feet small intestine and the liver and gall bladder in particular. The viscera of the chest were perfectly sound. I therefore beg to state that the man died from general inflammation (with the exception I have mentioned above) of the abdominal viscera.

Almost a year later, April 30, 1838, Robinson's reports are still pessimistic. He states that disease and severe mortality have been among the natives . . . of the 21 deaths the greater number having been amongst the young people in the prime of life. He continues:

They [the deaths] are truly discouraging, the more so as the individuals who have died are amongst the most intellectual, most docile and civilized.

These men and women were those who had ministered to his wants whilst on his perilous journeys and in several instances had preserved his life in those primæval districts. To remedy affairs and improve their health he suggested European and native games. Finally, in urging the removal of the survivors from Flinders Island, reports of Dr. Walsh and Dr. Allan were quoted as to the climate causing pulmonary consumption of a very fatal character. Dr. Walsh states *inter alia*:

New habitations have been of great value in improving the health of the natives, as the sick when he took over have, with few exceptions, entirely recovered, which was the more remarkable as many were old and extremely infirm.

He states also:

After the death of a friend they sit for days brooding in melancholy reverie on their bereavement and even at this settlement a greater affront cannot be offered than to repeat the names of the deceased relative or friend.

He summarizes the position in these words:

In my opinion the race, if continued on this island, at least the adult portion of them will become extinct in no very remote period of time for obvious reasons. The changes of the weather . . . being a frequent occurrence and must necessarily have a most prejudicial effect on a people who have in general, with scarcely a single exception, suffered so severely from pulmonary affections, and upon whom the evil results are so deeply and ineradicably rooted as the post mortem examination of those whom I have had an opportunity of inspecting but too truly confirm. From each renewed attack their state progresses from bad to worse . . . I recommend their speedy removal to a more warm and equable climate . . . as the best measure to suspend the action of the disease in chronic cases and probably effect a cure in incipient ones.

The reports of these *post mortem* examinations are unfortunately missing, as is the report of one on an infant which Robinson quotes as proving the hereditary nature of the disease under discussion.

A great loss was now to be sustained at Wybalenna, G. A. Robinson being appointed Protector to the Aborigines of New Holland. On his departure to Port Phillip twenty-two natives went with him, the flower of the flock. Kenyon⁽³²⁾ gives details of one phase of Robinson's work at Port Phillip, where he undertook long journeys among the various tribes accompanied by his faithful Tasmanians, who were of the utmost assistance

to him. The fate of the latter was, however, a sad one. Seduced by worthless whites and neglected by the authorities, they fell into trouble. Two were hanged, and the rest scattered and died, only two returning to Wybalenna. Here all was changed. Apathy and neglect reigned, although the new commandant, M. L. Smith, writing on October 26, 1839, states that in a period of eight months not a death had occurred. He also writes that of the eight remaining children but one is a boy.

G. A. Robinson, junior, in a report from Flinders Island, dated March 29, 1839, tells of the death of eight of the natives in the short space of five days, namely, three male adults, four female adults, and one child, all having taken place between the 28th ultimo and the 4th instant. The cause of this dire mortality was attributed to the late prevailing epidemic, which was supposed to have been brought to the establishment by the Governor's vessels. At no period since the removal of the aborigines from their native country had sickness been so general amongst them, not a single individual escaping the attack. He goes on to say:

The natives whenever they are attacked by sickness have an invariable custom to betake themselves to the bush environing the settlement. This is owing to the superstitious ideas they entertain that the manes of their departed countrymen will haunt them if they remain in the house during their sickness, and I regret to state that on the commencement of the epidemic had very probably an irresistible influence on their minds, for no sooner had the disease set in than they in a body deserted their homes, and this very naturally militated against their recovery. It would be impossible to describe the gloom that prevails at the present time, the whole of these poor people, from the bereavement of so large a portion of their kindred and friends and the anxiety they evince to leave a spot which occasions such painful reminiscences is hourly increasing . . . Amongst the males whose attenuated forms (which are mere shadows of what they once were) proves them the greatest sufferers and that the island has been a charnel house to them.

At the time of this report there were still two serious cases, but the rest were recovering and regaining strength.

Mr. M. L. Smith, twelve months later, in a dispatch states:

Since I took charge, a period of 14 months, 3 adults and 2 infants have died, the last of the former last Monday; King George, one of the oldest amongst them had been a long time declining. A fine male child has been added to their number, which are now as follows: 22 men, 25 women and 11 children. They all seem perfectly contented and happy, never showing any demonstration of opposition to authority.

Before his assuming responsibility, a survey of government property had taken place, giving in detail the huts, their occupants, and the furnishings allotted to the latter. An instance is quoted:

27TH APRIL, 1839, SURVEY OF GOVERNMENT PROPERTY.

No. 4 Cottage: Residents, Eugene and Sarah, his wife. Family, a child under 5 years, Sarah's daughter.

Furniture: E. & S. 2 good blankets, 5 useless and torn ditto, 1 rug, 2 palliasses, 2 check curtains, 1 tin pannican, 1 tin dish, and 1 pocket knife.

Eugene's clothes: 1 frock coat, 1 B. flannel shirt (worn by his wife), 1 Scotch cap, 2 handkerchiefs, 1 tomahawk, 1 spelling book, 1 cotton shirt, good.

Sarah's clothes: 1 checked chemise, 1 old and unusable blanket and frock. This female wearing her husband's blue flannel shirt as above for a gown.

There was little change at the settlement during the administration of Dr. Jenerret. Dr. Milligan was the next and final arbiter of its fortunes. He brought to the settlement with him the seeds of another epidemic. A report soon after his arrival states:

A destructive epidemic catarrh exists upon this island, introduced by the Settlement boat. In addition to the ordinary symptoms of congestion and increased action of the organs of respiration and the viscera of the chest generally, they have developed in some instances a violent determination to the head and in others to the serous tissues in the abdominal cavity. In all materially modified by a strong rheumatic diathesis.

The outbreak was accompanied by much unfavourable weather, the temperature being low and changeable and with great humidity.

All the aborigines were affected and a large proportion of the Europeans, 12 of the former to a serious extent.

It is with deep concern he reports that four have sunk under the attack, two native women having died and two having been suddenly carried off by a relapse after a partial recovery. He gives in detail an account of one of these, Victoria, a native woman married to a sealer. Her symptoms apparently were first due to this epidemic and she suffered greatly from the continuance of obstinate diarrhoea. When seen, she was sitting up, half naked and very feeble. Three days later she passed away. Although there was some talk of a *post mortem* examination, it was not performed. Successive commandants after the departure of G. A. Robinson had consistently urged that the surviving natives should be removed to Van Diemen's Land. The Government in 1847 decided to move the establishment to Oyster Cove. Of the 201 natives landed on Flinders Island between 1831 and 1835, 73 had died and 3 had escaped. In 1836 but 123 remained, and for the new move they numbered but 45.

And the places thereof shall know them no more.

Ps. ciii, 16.

The want of vision displayed by the Government all through this period still remained, and Oyster Cove was far from suitable as their new home. Beautiful in itself, and with a mild climate, it had been used for many years by convicts as a sawmill and sandstone quarry. Dr. Milligan did not himself remain at Oyster Cove, but administered his charge from Hobart Town, and the settlement was supervised by Mr. Dandridge, who was easy-going and in reality functioned more as a quartermaster. Want of strict control and unsuitable clothing, liberty to wander in the bush, bouts of drunkenness and immoral association with the low whites soon undermined the tone and health of the natives; and the same mortality continued. In 1855 this, with indolence, neglect and drink, had brought down their numbers to only sixteen, four of whom were men, two boys and ten women. George Walter Arthur and Jackie Allen (*alias* Leonidas), who had been with John Batman as a boy, were drowned when, in a state of drunkenness, they were sailing

their boat from Hobart Town to Oyster Cove; and shortly afterward the station was broken up. Thirty of those who had originally been brought there remained in the little churchyard on the hill, some six hundred yards from the huts. The diseases from which they had died were those arising from neglected colds, and in all probability pulmonary tuberculosis.⁽²³⁾ The small remnant, after arrival at Hobart Town, where several resided at the infirmary, dropped off one by one, the last man to die being William Lanné, known as "King Billy".



FIGURE III.

William Lanné, "King Billy"—last Tasmanian male.

He was a whaler and had sailed out of Hobart Town on several voyages. Although he was a man of heavy build and clumsy appearance, an old whaler who had pulled with him in the same whale-boat assured me that not only was he an expert harpooner, but as active as a cat and exceptionally light on his feet. Paid off on a Saturday from the *Runnymede*, he received his "lay", amounting to £12 4d. 5d., and died from a severe attack of dysentery at the "Dog and Partridge" public house on March 3, 1869. The circumstances of his death and burial are still remembered in Tasmania, his skull having been removed before interment, and the night after his burial the body was dug up and mutilated. For the former act my grandfather, the Honourable W. L. Crowther, was believed to be responsible, and for the latter the Royal Society of Tasmania. In the first case retribution was swift, my grandfather's appointment as honorary surgeon to the Colonial Hospital being terminated. Much

political capital was made out of this occurrence, for which (if he were responsible) his scientific zeal was to blame. It is pleasing to know that shortly afterwards, in 1869, the Council of the Royal College of Surgeons awarded him their gold honour medal and the Fellowship of the College. This is the only occasion upon which the former honour has been conferred on an Australian. The last woman, Truganina, survived for several years. She had been a member of the Bruny Island tribe and a daughter of their chief. Attached to



FIGURE IV.

Truganina, Bruny Island Tribe—last Tasmanian female.

Robinson's mission during almost all his wanderings she had played a very prominent part in the subjugation of the natives. During the perilous time at the Arthur River, when Robinson was in contact with the western tribe, it was she who had saved Robinson's life. Married at least twice, she was a little over seventy at the time of her death. For some years she had lived with Mrs. Dandridge and had created much interest as the last survivor of her race. After her death on May 8, 1876, Mrs. Dandridge petitioned the Government to continue the allowance they had paid for her upkeep, stressing the fact that the care of the old lady had been for some years both onerous and at times distasteful. So in seventy-three years from the first settlement of the island we find that the aboriginal race had ceased to exist. It has been said since that Mrs. Fanny Cochrane Smith, of Port Cygnet, and native women of Kangaroo Island

were more recent survivors. It is very doubtful whether these women were more than half or three-quarter caste Tasmanians, and it may be taken that with Truganina passed the last of undoubted purity of blood. Today there remain at Cape Barren Island a community of some two hundred so-called "half-castes", descendants of the Tasmanians. Although darker, they do not in manner and appearance markedly differ from ordinary Europeans.

Recent Research.

Had time permitted, I intended to go fully into the subject of recent research; as it is, I can mention only one or two points of outstanding interest. Of late years R. W. Legge has brought together a remarkable collection of Tasmanian stone implements and has described several new forms.⁽³⁴⁾ Recently, A. L. Meston⁽³⁵⁾ has found and described rock carvings on our north and west coasts, which he ascribes to the extinct Tasmanian. Those at Devonport I have seen, and some of them are certainly of human origin. The more recent discoveries, twelve miles south of Cape Grim, are as described by him, even more convincing, and closely allied to those forms found on the Australian continent.⁽³⁶⁾ This discovery has had the effect of enhancing the cultural status of the Tasmanians relatively to that of the mainland natives. Each year finds more workers on problems relating to the extinct Tasmanian, and for that reason it is well to know where their remains may be studied. Mention has already been made of the collections in English and European museums worked upon by Garson and Sir William Turner. Nearer at home we have the archives of the Tasmanian Government, by no means complete and not systematically arranged. Yet the innumerable documents are for the most part bound up in folio volumes and preserved in fire-proof vaults at the Public Buildings, Hobart. Of equal interest and value is the Tasmanian Museum collection. This, the largest existing collection in any single institution, includes one complete skeleton, twenty-three crania, and a number of individual bones.⁽³⁷⁾ Here, too, are almost all the wooden weapons that are extant, also specimens of the natives' crafts, such as native baskets, canoe models and necklaces. An immense number of stone implements has been collected and in part classified. The policy of the trustees has been to centralize and make available to workers all possible material relating to the aborigines. It is fitting here to mention the admirable work of the late Clive Lord, himself an authority on the Tasmanian race. The formation of the aboriginal group at the museum was largely due to his inspiration and reflects his exact knowledge of his subject. Collections at Cullenswood and at the Launceston Museum, and of my own also merit close study. In the field much material is to be found on their old camping grounds (see map). The Tasmanian crania in Australian museums and collections have been grouped by Dr. J. Wunderly as a Tasman series,⁽³⁸⁾ and are located as follows:

Skull Number.	Collection.
1 to 23	Tasmanian Museum, Hobart, Tasmania.
24	Lost.
25 to 29	Queen Victoria Museum, Launceston, Tasmania.
30 to 31	Mersey Bluff Museum, Devonport, Tasmania.
32 to 38	University of Melbourne (formerly belonging to the late E. O. Cotton, Esq.).
39 to 40	Lost.
41 to 43	Dr. W. L. Crowther, Hobart.
44	Dr. W. Inglis Clark, Hobart.
45 to 50	Dr. W. L. Crowther, Hobart.
51 to 55	National Museum, Melbourne.
56 to 57	University of Melbourne.
58 to 60	Institute of Anatomy, Canberra.
61	Gilbert Rigg, Esq., Melbourne.
62 to 70	South Australian Museum, Adelaide.
71 to 85	Tasmanian Museum, Hobart.
86 to 89	Dr. W. L. Crowther, Hobart.
90	R. W. Legge, Esq., Cullenswood.
91 to 96	Queen Victoria Museum, Launceston.
97 to 99	Tasmanian Museum, Hobart.
100	National Museum, Melbourne.
101	Australian Museum, Sydney.
102	Australian Museum, Sydney.
103	A. L. Meston, Esq., Launceston, Tasmania.

The Future of the Australian Native.

The problem of the future of the Australian native is rendered more difficult, as control is divided between the Governments of the Commonwealth and of several States. Again, it may be said to present two aspects, one the control of the nomadic tribes, the other the care of full-bloods and half-castes in settled areas and associated with missions. Speaking generally, the central Government and those of Western Australia, South Australia, and Queensland have well devised laws and ordinances to protect and control the latter sections. A return of June 3, 1932, gives the total number of full-bloods as 59,719, of whom 28,763 are nomads. This total, 948 more than that of 1921, shows that the race is at least holding its own. In estimating these figures, 10,000 have been allotted to those aborigines of Western Australia who live outside the influence of Europeans (see Table). During

recent months the tribes of the Northern Territory have been given much newspaper publicity in regard to outrages stated to have been committed against them by the whites and the murder of one of our constables at Caledon Bay. The nomadic tribes of the Territory are estimated to number in all 14,000, and at their disposal is more than one-half of the Territory, namely, 251,520 square miles of unalienated land. An additional area of 60,000 square miles, twice the size of Tasmania, in Arnhem Land has recently been reserved for aborigines. So we find that whereas in Tasmania some 7,000 natives (a very liberal estimate of their probable number), occupied 26,216 square miles, twelve times that area in the Territory is available to twice the number of aborigines. Such a comparison, of course, cannot take into consideration the original boundaries of tribal areas and the resentment of one tribe to another hunting or moving through its territory. By ordinance they may pass freely, camp, or take their game on

pastoral leases or freehold property. To conserve their interests there is a chief protector responsible for the administration, and under him are thirty-two protectors, who carry out the duties of a constabulary. Into the aboriginal reserves are allowed to travel only certain officials and those to whom a special pass has been given by the protector, and no one is permitted to enter there for commercial purposes. Those natives, full-bloods or half-castes, who are employed on stations or are attached to missions or other institutions are protected by numerous ordinances that define their conditions of work, remuneration, medical attention *et cetera*. On the other hand, the tribes, particularly in Arnhem Land, have given

much anxiety to the Ministry of the Interior. Let me say at once that the projected expedition of the Reverend H. B. Warren to Caledon Bay appears to me to be both wise and far-seeing. Such methods of conciliation bring positive results where a punitive



Table showing Commonwealth Aboriginal Population, 1921-1933.

Year.	Full-Bloods.			Full-Bloods and Half-Castes in Regular Employment.	
	Adults.	Children.	Total.	Number.	Percentage of Total Number.
1921	46,723	12,048	58,771	—	—
1928	48,044	12,619	60,663	15,473	20.0
1929	49,078	12,723	61,801	15,754	20.1
1930	49,167	12,567	61,734	14,671	18.0
1931	46,676	12,225	58,901	12,136	15.6
1933	47,346	12,374	59,719	12,134	16.4

NOTE.—The figures include the 10,000 aborigines in Western Australia estimated to live outside the influence of Europeans.

expedition would tend to breed more racial animosity. Speaking at the national capital, one feels that the welfare of the natives has the support of all political parties. The following suggestions are offered for their consideration. First, that in problems affecting the natives of Australia they be viewed as a single people. At present different methods apply when the natives happen to be on one or other side of a boundary, as, for example, between Federal and State territory. Secondly, that to give effect to policies a trained administrator who has a love for and has studied anthropology be appointed. The administration of Papua by Sir Hubert Murray shows what may be attained in this way.⁽³⁸⁾ Thirdly, that the constabulary or such deputy officials as are appointed as protectors should be picked men who have received training in anthropology. A cadet system would be attractive and insure the provision of suitable recruits. Fourthly, and most important, that the areas proclaimed as reservations be efficiently patrolled and the tribes therein subjected to a minimum of interference by officials and others. In this way aggressions, murders, and reprisals would be prevented. The credit of Australia is gravely undermined by such allegations as have been made too frequently of late. Tasmania, in her infancy, and without scientific help, allowed her unique race to perish. For Australia to permit a repetition of such a tragedy would be unpardonable.

Conclusion.

As this oration closes, consider with me the last scene at Professor Halford's home at Inverloch. His nurse (M.V.T.), herself a Tasmanian, has written me:

Here he passed his days amidst his flowers, music and, most beloved of all, his library, with Sir Walter Scott's "Ivanhoe" never far from his side. Day by day he listened to the old songs, his favourite being "Tom Bowling". The change came rather suddenly, and when being helped into bed his last words were: "I wonder, Nurse, if my son could get the words of the 'Immortality of the Soul' put to music for a record." At six that evening he lapsed into unconsciousness and died some days later.

The lines referred to are:

Our birth is but a sleep and a forgetting;
The soul that rises with us, our life's star,
Has had elsewhere its setting
And cometh from afar;
Not in entire forgetfulness,
And not in utter nakedness,
But trailing clouds of glory do we come
From God, who is our Home.

She continues:

He found his happiness in the love of things which were and are today within the reach of all.

Acknowledgement.

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References.

- ⁽¹⁾ G. E. Mainwaring: "My Friend the Admiral", 1931, page 25.
- ⁽²⁾ G. P. Whitley: "George Tobin: A Neglected Naturalist", *The Australian Museum Magazine*, Volume V, 1923, page 44.
- ⁽³⁾ Smyth R. Brough: "Aborigines of Victoria", Volume II, 1878, Appendix I.
- ⁽⁴⁾ W. Baldwin Spencer: "Report of the Horn Scientific Expedition", 1896.
- ⁽⁵⁾ R. J. A. Berry and A. W. Robertson: "Diotropic Tracings in Four Normae of 52 Tasmanian Crania", *Transactions of the Royal Society of Victoria*, Volume V, 1909, Part I.
- ⁽⁶⁾ R. J. A. Berry and A. W. Robertson: "The Place in Nature of the Australian Aboriginal as Deduced from the Study of his Calvaria et cetera", *Proceedings of the Royal Society of Edinburgh*, Volume XXXI, Part I, Number 3, 1910.
- ⁽⁷⁾ R. J. A. Berry and A. W. Robertson: *Proceedings of the Royal Society of Edinburgh*, Part II, 1914, page 186.
- ⁽⁸⁾ L. W. G. Büchner: "A Study of the Curvatures of the Tasmanian Aboriginal Cranium", *Transactions of the Royal Society of Edinburgh*, Volume XXXIV, Part II, 1914.
- ⁽⁹⁾ L. W. G. Büchner: "An Investigation of 25 Tasmanian Crania et cetera", *Transactions of the Royal Society of Victoria*, Volume XXV (New Series), Part I.
- ⁽¹⁰⁾ L. W. G. Büchner: "A Study of the Prognathism of the Tasmanian", *Transactions of the Royal Society of Victoria*, Volume XXV (New Series), Part I.
- ⁽¹¹⁾ K. Stuart Cross: *Transactions of the Royal Society of Edinburgh*, Volume XXXI, Part I, Number 4, 1910.
- ⁽¹²⁾ F. Wood Jones: "Six Hitherto Undescribed Skulls of Tasmanian Natives", *Records of the South Australian Museum*, Volume II, Number 4, 1924.
- ⁽¹³⁾ F. Wood Jones: "The Tasmanian Skull", *Journal of Anatomy*, Part II, 1929.
- ⁽¹⁴⁾ R. H. Puckle: "Presidential Address. Section F: 'Report of the Australasian Association for the Advancement of Science', 1929, page 294.
- ⁽¹⁵⁾ T. W. Edgeworth David: "Geological Evidence of the Antiquity of Man in the Commonwealth", *Proceedings and Publications of the Royal Society of Tasmania*, 1923, page 142.
- ⁽¹⁶⁾ Geoffrey Smith: "A Naturalist in Tasmania", 1909, page 133.
- ⁽¹⁷⁾ John West: "A History of Tasmania", Volume II, 1852, page 76.
- ⁽¹⁸⁾ H. Rodman: *Journal of the Polynesian Society*, Volume XXXVII, Number 1.
- ⁽¹⁹⁾ James Kelly: "First Discovery of Port Davey", *Proceedings and Publications of the Royal Society of Tasmania*, 1920, page 162.
- ⁽²⁰⁾ William Turner: *Transactions of the Royal Society of Edinburgh*, Volume XLVI, Part II, 1909.
- ⁽²¹⁾ W. L. Crowther: "On Two Tasmanian Crania", *Proceedings and Publications of the Royal Society of Tasmania*, 1930, page 124.
- ⁽²²⁾ H. L. Roth: "The Aborigines of Tasmania", 1899, page 191.
- ⁽²³⁾ P. Topinard: *Revue d'anthropologie*, 1876, page 71.
- ⁽²⁴⁾ T. D. Campbell: "Dentition and the Palate of the Australian Aboriginal", the University of Adelaide, 1905.
- ⁽²⁵⁾ W. Bligh: Log on H.M.S. *Providence*, February 7, 1792.
- ⁽²⁶⁾ R. W. Legge: "Tasmanian Aboriginal Middens of the West Coast", "Report of the Australasian Association for the Advancement of Science", 1929.

- (18) R. H. Pultine: *Reports of the Royal Society of South Australia*, Volume XLVIII, page 83.
- (19) M. F. Peron: "A Voyage of Discovery", 1809, page 207.
- (20) J. E. Calder: "Some Account of the Native Tribes of Tasmania", 1875, page 25.
- (21) C. E. Lord: "Notes on the Diary of the Reverend R. Knopwood", *Proceedings and Publications of the Royal Society of Tasmania*, 1928, page 131.
- (22) J. Wunderly and F. Wood Jones: *Journal of Anatomy*, Volume LXVII, Part IV, 1933.
- (23) "Copies of Van Diemen's Land Correspondence", Parliamentary Papers, London, 1831.
- (24) James Bonwick: "The Last of the Tasmanians", 1870.
- (25) J. E. Walker: "Notes on the Aborigines of Tasmania", *Proceedings and Publications of the Royal Society of Tasmania*, 1897, page 153.
- (26) A. S. Kenyon: "The Aboriginal Protectorate of Victoria", *Victorian Historical Magazine*, Volume XII, Number 3, 1928, page 134.
- (27) James Bonwick: "The Lost Tasmanian Race", 1884, page 180.
- (28) R. W. Legge: "Tasmanian Stone Culture", *Proceedings and Publications of the Royal Society of Tasmania*, 1929, page 39.
- (29) A. L. Meston: "Aboriginal Rock Carvings in Tasmania", Parts I and II, *Proceedings and Publications of the Royal Society of Tasmania*, 1931, page 12; 1932, page 1.
- (30) C. P. Mountford: "Aboriginal Rock Carvings in South Australia", "Report of the Australasian Association for the Advancement of Science", 1929, page 337.
- (31) W. L. Crowther and C. E. Lord: "A Descriptive Catalogue of the Tasmanian Museum", *Proceedings and Publications of the Royal Society of Tasmania*, 1920, page 137.
- (32) Hubert Murray: "Indirect Rule in Papua", "Report of the Australasian Association for the Advancement of Science", 1929, page 329.

PRIMARY PAPILLOMA OF A URETER COMPLICATED BY PYONEPHROSIS OF THE SAME KIDNEY.

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AND

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Frequency.

ALL authorities are agreed that primary neoplasms of the ureter are extremely rare. After a review of the literature in 1932, H. A. Fowler⁽¹⁾ concluded that 53 cases of carcinoma and 34 cases of papilloma had been reported.

Types.

Fowler suggested the following classification:

1. Sarcomata.
2. Mixed tumours.
3. Papillomata.
4. Papillary carcinomata.
5. Non-papillary carcinomata—
 - (a) Squamous-celled,
 - (b) Medullary or solid.

The distinction between innocent and malignant papillomata is academic, as in every case of the former potential malignancy must be accepted.

Symptoms.

The most important symptoms are hæmaturia and pain. Hæmaturia is the most reliable sign and is generally the first symptom complained of by the patient. It may be a factor in the causation of pain, as clots passing down the ureter cause colic. Obstruction is an early result, so that renal back-pressure with pain and ultimately dilatation of the kidney occurs. Hydronephrosis of the kidney of the same side has been reported in a large proportion of the cases.

Diagnosis.

At cystoscopy one may see bloody urine issuing from one ureteral orifice which demands further investigation. This, in conjunction with the protrusion of a papillomatous mass from the orifice, which becomes more prominent with ureteral contraction, clinches the diagnosis. In the latter case, if a ureterogram is proposed, it appears that ureterography by intravenous technique is infinitely preferable to passing a catheter through the tumour. In the former case, with only the stained efflux as a guide, one would, on account of its rarity, scarcely suspect a ureteral neoplasm, and perform retrograde pyelography. Diagnosis at any early stage may then prove difficult, as kinks, strictures and spasms all commonly tend to cause irregularities in a ureterogram. Hunner⁽²⁾ has reported that simple stricture of the ureter may also cause hæmaturia. Serial pictures might be of assistance when all other methods of tracing the cause of the blood-stained efflux fail; but that may prove a counsel of perfection.

Treatment.

Complete uretero-nephrectomy is demanded, either as a one- or two-stage operation. The former, which appears to be the ideal, depends on the condition of the patient and the skill of the surgeon. Joly⁽³⁾ advises the use of separate incisions for exposing the kidney and the lower ureter, as the consequent weakening of the abdominal musculature is less than with one long incision. It appears wiser to bring the kidney out on to the loin and to free the ureter down as far as possible first, as if for any reason the full programme has to be modified, it is necessary to have the renal section completed first. In the lower part of the operation a margin of healthy bladder tissue must be removed with the ureter and orifice. If the operation is to be performed in two stages, the interval between should be only a few weeks, as the risk of dissemination must be borne in mind. Even then a careful technique of ligating and cauterizing the ureteral end must be adopted, as the whole length of the ureter must be regarded as affected by growth. It has been suggested that where the growth exists at the lower end of a ureter, that portion should be excised and the cut end above transplanted into the bladder. Unless the kidney on the other side be grossly inefficient, that would appear to be a risky surgical exercise on account of the danger of papillomatous transplants having already taken place. Also, as already pointed out, hydronephrosis is often present on the side of the growth.

Post-Operative Supervision.

Cystoscopy should be performed every few months for a couple of years, as not only is there a risk of a recurrence of innocent papillomata in the bladder, but malignant transplants have followed the removal of apparently simple papillomata of the renal pelvis, which differ in situation only from those of the ureter.

Case Report.

The clinical history of our patient is as follows.

H.M., a male, aged sixty years, first noticed blood in his urine on April 25, 1933. He had no other symptoms.

He again noticed blood in his urine early in June, and cystoscopy at that time revealed a papilloma protruding from the right ureteral orifice. The intramural portion of the right ureter was noticed to be thickened and elevated above the bladder floor. Indigo-carmin was given intravenously. The left kidney appeared normal, but there was no excretion of urine or indigo-carmin from the right side. There were no "implants" on the bladder mucosa.

Abdominal palpation disclosed enlargement of the right kidney.

The patient was admitted to hospital on June 20, 1933. He had noticed aching pain in the right kidney for the first time the day before. Examination revealed that the right kidney was distinctly palpable and appeared larger than it was at the first examination. "Uroselectan B" disclosed a normal left kidney. There was no excretion from the right side.

The patient was confined to bed and complained of a dull ache in the right kidney. His temperature was continuously elevated for about ten days. It was not considered wise to attempt catheterization of the right ureter.

By the beginning of July his temperature was normal and the aching of the right kidney had ceased.

The patient was a fragile little man, but a general medical survey of him revealed no tangible abnormality apart from our urologic findings.

The diagnosis resolved itself into two possibilities: (i) primary papillary growth of the lower ureter with secondary dilatation of the ureter and kidney pelvis above, (ii) primary papillary growth of the kidney with secondary implantation in the lower ureter.

The rapid increase in the size of the kidney over a period of about eighteen to twenty days, together with his elevated temperature, convinced us that there was some infected hydronephrosis. No help was got from "Uroselectan", as the kidney did not excrete any. We did not perform retrograde pyelography, partly because we did not think the evidence from it would materially help the diagnosis, and partly because we felt that the less the growth was interfered with, the better.

Treatment.

We decided that complete removal of the kidney and ureter, including that part of the bladder embracing the lower end of the ureter, was indicated.

It is agreed among urologists that in all these papillary growths of the kidney complete ureterectomy should be performed as well as nephrectomy, because implantation along the course of the ureter is a common occurrence with eventual secondary implantation on to the bladder mucosa.

Such a surgical operation may be a formidable procedure if performed at one time. It depends on the difficulties met with in any particular case as to how much should be attempted. We can see no objection to performing the operation in two stages if certain safeguards are observed. As it transpired, a one-stage operation in our case was out of the question.

Operation was performed on July 12, 1933. The patient was given spinal analgesia by one of us (K.K.), "Percaine"-glucose solution being used. When the analgesia had reached a level sufficient for a kidney operation, he was taken charge of by a senior house surgeon, whose duties were to watch the blood pressure and attend to the patient's safety and comfort.

The right kidney was approached through a lumbar incision. We encountered difficulty at the start; there were many perirenal adhesions, and the kidney was obviously hydronephrotic. The ureter was dilated and thickened and was adherent to the vena cava; the most careful dissection was necessary to free it. We did so as

far as the pelvic brim, where it was carefully tied in several places, divided by a cautery, and both ends were carefully cauterized.

The kidney pelvis was adherent to the duodenum, and again careful and somewhat tedious dissection was necessary to free it.

When the nephrectomy was completed it was obvious that removal of the lower portion of the ureter would have to be postponed for another occasion.

The patient was returned to bed with a considerable degree of shock; this persisted throughout the day, but about midnight he rallied in an appreciable way, and next morning was free from immediate danger. His recovery from then on was uneventful. The patient was discharged from hospital and sent to the country.

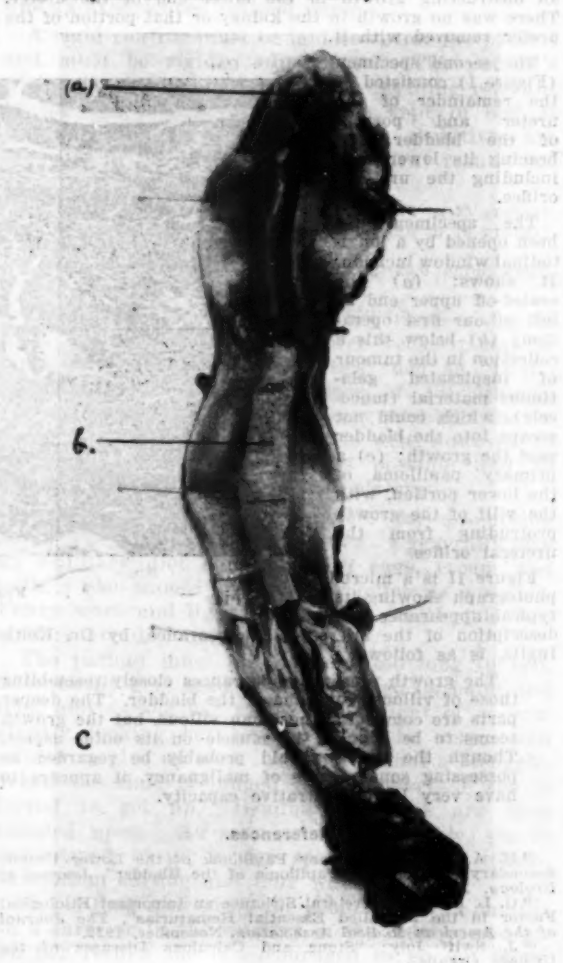


FIGURE 1.

He was readmitted to hospital on September 12, 1933. There had been a remarkable improvement in his health. He had an excellent colour and had obviously grown fatter.

Again, under spinal analgesia, he was submitted to operation for removal of the lower portion of his ureter.

The ureter was approached through a mid-line incision. The peritoneum was stripped from the pelvic wall and pushed inwards. The upper cut and sealed end of the ureter was readily found. Some careful dissection to free it from dense adhesions to the external iliac vein was

necessary. After that it was freed to its entrance to the bladder. The bladder was incised and a portion of it, containing the intramural portion of the ureter, was removed. The wound was closed with a "Winsbury White" drain tube in the bladder.

The patient made an uneventful recovery and left hospital on November 8, 1933. He will be subjected to cystoscopy from time to time to watch for possible implants on to the bladder mucosa. These implants, we believe, if they occur, can readily be dealt with by perurethral fulguration.

The specimens removed at the two operations were examined in the Department of Pathology at Sydney Hospital.

The kidney was an infected hydronephrosis produced by an obstructing growth in the lower end of the ureter. There was no growth in the kidney or that portion of the ureter removed with it.

The second specimen (Figure I) consisted of the remainder of the ureter and portion of the bladder embracing its lower end, including the ureteral orifice.

The specimen has been opened by a longitudinal window incision. It shows: (a) the sealed-off upper end as left at our first operation; (b) below this a collection in the tumour of inspissated gelatinous material (mucocoele), which could not escape into the bladder past the growth; (c) a primary papilloma of the lower portion, with the villi of the growth protruding from the ureteral orifice.

Figure II is a microphotograph showing its typical appearance. A description of the microscopic appearance, by Dr. Keith Inglis, is as follows:

The growth presents appearances closely resembling those of villous papilloma of the bladder. The deeper parts are compact rather than villous, but the growth seems to be bounded by muscle on its outer aspect. Though the lesion should probably be regarded as possessing some degree of malignancy, it appears to have very little infiltrative capacity.

References.

- ⁽¹⁾ H. A. Fowler: "Solitary Papilloma of the Lower Ureter, Secondary to Recurrent Papilloma of the Bladder," *Journal of Urology*, May, 1932.
- ⁽²⁾ G. L. Hunner: "Ureteral Stricture an Important Etiological Factor in the So-Called Essential Hematurias," *The Journal of the American Medical Association*, November, 1922.
- ⁽³⁾ J. Swift Joly: "Stone and Calculous Diseases of the Urinary Organs".

EXHAUSTION NEUROSIS.

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DURING the past twelve months I have seen a number of cases of what, for want of a better name, I term "exhaustion neurosis". Whilst the

condition must be common, it is seldom seen in psychiatric clinics. Hence it receives no prominence in text books of psychiatry and is variously diagnosed as an example of hysteria, neurasthenia, psychasthenia or even as acute melancholia. General practitioners save themselves much bitter and fruitless controversy by labelling the condition "debility", "a neurosis" or, most commonly, "a nervous breakdown".

The disease is, therefore, a cinderella, of little interest to psychiatrists who so rarely see it, of less interest to general practitioners who are unversed in the finer points of the neuroses. To my mind, the disease is a distinct clinical entity,

deserving of far more recognition than it usually receives.

The patients are mostly single women under the age of thirty years. I have not seen a case in men. The patients all conform to a stereotyped psychological pattern. They are extremely conscientious, hard-working individuals with a most meticulous regard for detail. Everything they do must be done with almost mathematical accuracy. They are above the average in intelligence and always do

well at school. Their high position in their class is the result, however, not of brilliancy, but of sheer hard work. They are shy and imaginative and have great difficulty in making friends. They do not go in for sports and have few interests apart from their work and their home. They go out only when they are compelled to. They spend their spare time sewing and reading. Most of them are inveterate readers, being especially keen on poetry and classical literature. Sexual matters trouble them but little. The patients are extraordinarily self-willed and perhaps obstinate. Once they fix their mind on a certain course of action they will stick to their plans with the grimmost determination.

Most of the patients I have seen have been nurses—mental and general. The way they stick to their work in spite of the profound exhaustion of their minds is a vivid reminder of the courage of the human mind.

The patients are quite happy, provided everything is going well. But they take unto themselves not only their own worries, but also the worries of their relatives and friends. They brood over the illnesses of their relatives, over financial and domestic worries at home. They perhaps have some

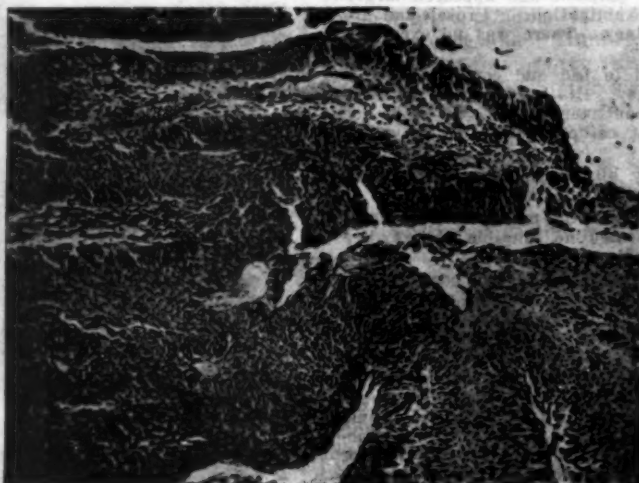


FIGURE II.

disappointing love affair or their health is undermined by an attack of some acute bodily disease, such as influenza. They now find that they have a difficulty in doing their work. The simplest everyday task exhausts them mentally and physically. They refuse to take a rest and to give up work for the time being. Soon they begin to sleep badly and to lose their appetite. One nurse in this stage lost twelve pounds in weight in six weeks. This state of affairs might go on for months. A time comes, however, when they lose control of their emotions. They, who had always prided themselves on the fact that they had their laughter and their tears under such perfect control, now weep on the slightest provocation: "I cannot look at anyone without weeping" one nurse said. They feel exhausted mentally and physically, and in spite of themselves are forced to seek medical advice.

This is the stage so commonly seen and so successfully treated by general practitioners. All that the patient requires is rest in bed for a week or two, 0.6 gramme (ten grains) of potassium bromide three times a day, and extra eggs and milk added to an ordinary diet. After a short holiday of a week or two the patient is once again able to resume her usual occupation.

If, however, in spite of her tears and her exhaustion, the patient continues to work, her condition rapidly becomes worse. She is now sleepless, has no appetite and is unable to concentrate on anything. She becomes restless and depressed. A climax is reached. She collapses or she may express her unutterable mental boredom by some extraordinary action. A nurse sarcastically abused the medical superintendent and the matron of a hospital. Another patient went into the street and held up all the traffic. May not many apparently inexplicable suicides in young girls be explained on the self-same psychological processes detailed above?

Once the stage of collapse is reached the condition of the patient is pitiful. She complains bitterly of utter fatigue of body and mind and plaintively begs for rest: "Oh, Doctor, if I could only sleep I would be all right." Some patients, especially nurses, dose themselves with huge doses of sedatives, especially aspirin, and find little relief. One nurse became mildly confused as a result of taking a dose of 2.0 grammes (thirty grains) of veronal.

Constipation is usually present. Prolonged amenorrhœa may be met with. Unlike most neurotics, the patients have few paræsthesiæ and they do not call one's attention constantly to their aches and pains. All that they complain of is utter fatigue, a sense of collapse, and they plaintively beg to be left alone to sleep.

Physical examination reveals few abnormalities. There may be signs of recent loss of weight, and there is generally a marked decrease in muscle tone. The tongue may be coated and dry. Unlike most neurotics, the patients are not disturbed by physical examination. A school girl, aged seventeen, had a pulse rate of 60 during auscultation of her heart.

The diagnosis is self-evident, provided the history is accurately taken and provided that bodily diseases are first excluded. One patient who showed all the classical symptoms detailed above had early phthisis.

The treatment of this advanced stage is tedious and, if necessary, must be prolonged for many months. The patient is best treated in a general hospital. Treatment at home is as a rule unsatisfactory on account of the over-anxiety of the relatives. One out-patient did remarkably well at home only because she was nursed by an aunt, who was an experienced trained nurse.

A rigid routine must be laid down for the patient and must be rigidly adhered to. The patient's wishes must not be consulted in anything relevant to the treatment. She must be kept in bed, if necessary, for months at a time. Sedatives are essential in the early stages. Excellent results are usually attained with this mixture:

Potassii bromidi, 0.6 to 1.0 gramme (10 to 15 grains).
Chloral hydratis, 0.6 to 1.0 gramme (10 to 15 grains).
Tinctura opii, 0.6 mil (10 minims).
Infusum gentianæ compositum, ad 15.0 cubic centimetres (half a fluid ounce).

The mixture may be given three times a day at first. At the end of two or three weeks it may be given only at night. Hypnotics such as "Dial", "Amytal", sulphonal in a dose of 1.0 gramme (fifteen grains) may be necessary at night in the earlier stages of treatment. It is wise, however, to abandon sedatives as soon as possible and to substitute tonics, such as Easton's syrup.

General massage is invaluable for promoting sleep. The patient must be overfed. I generally give an ordinary diet enriched with eggs, cream and milk. She should be kept as quiet as possible. Fancy work and light reading are permissible, but visitors are discouraged.

The patient must not be kept too long in bed. She quickly gets used to being waited on hand and foot, and as she has tasted the delight of so constantly looking her best in bed, she very often refuses to give up such luxuries without a struggle. When the time is judged to be opportune she is forced to get up. Gradual exercises are then insisted upon. As soon as is practicable, she is encouraged to go in for sports, such as tennis, swimming, surfing and long walks.

She is then sent away for a holiday. Six months on a farm or in the country is the ideal aimed at. On her return she is encouraged to go out more, to take more interest in things apart from her work and her home, and to remember that she has tried to be self-sufficient and has failed.

It behoves her, therefore, to be more feminine in her outlook and in her ideals. As one exceptionally intelligent matron, a patient at Broughton Hall, once put it: "A dab of powder on a woman's nose will do her more good than any amount of medicine."

Such is the condition (call it what we like—neurasthenia, hysteria, melancholia) that is

becoming more and more common; especially amongst nurses. Perhaps the hard economic conditions and the continual worry of the patient in supporting members of her family may be a causative factor. It may be the uncertainty of the future, their fading hopes of marriage, and their commitment to a profession for which, perhaps, they have no real liking and which they dare not leave on account of the financial depression. It is certain that the patient will recover from each individual attack. It is equally certain that, given the same set of circumstances, the condition will recur again and again. We can only point out to the patient exactly how the illness was caused and the imperative necessity for her to change her mode of life. If, in the future, she is again feeling exhausted, a rest for a week or more will give her sufficient confidence again to face her difficulties. Her future is in her own hands. We can only hope that she will guide her footsteps with prudence and foresight and that she will be spared as much as possible from the trials and troubles that afflict the great majority of men and women.

Reviews.

DIABETES.

THE 1933 edition of "The Diabetic Life" by R. D. Lawrence contains little that is new or striking; in his preface the author points out that in this respect his book keeps pace with the times and that the years 1931-1933 have been somewhat barren of revolutionary ideas.¹

The critical observer, after perusing the present edition, might even think that in dietetic matters the book tends to lag a little behind currently accepted principles; there seems little doubt that high carbohydrate diets and dietetic liberalism have come to stay. In its inception the Lawrence line ration scheme for prescribing diabetic diets came as a godsend to all those endeavouring to cope with large diabetic clinics. It was an eminently practical scheme and from the start it met with a most cordial reception. For a number of years the scheme, with the modifications that accurate food analyses have brought about, has been the corner-stone on which the fabric of the book has been erected. The scheme, however, tends to be a little rigid, particularly in its insistence on exactly weighed diets. With the advent of the era of comparatively free diets there comes the real risk that this rigid scheme may detract from rather than enhance the value of the book. It was Banting himself who remarked: "Diabetes nowadays is tending to become a much overtreated disease". The vast mass of food tables and the like which this manual contains lend colour to his remark. The most advanced free thinkers in diabetic matters tend, after a time, to become conservative and to stereotype their methods; a tendency in this direction is already evident here.

It is only fair to add that in his own practice, as judged from his recent address to the British Medical Association annual meeting, Lawrence allows far greater liberty to his patients than he advises in this manual: there is every reason to hope that the next edition will embody the newer liberalism in these matters.

So much for the debit side; on the credit side there remains a large amount of detailed information about diabetic matters which is nowhere else so clearly or so

vividly set forth. The author has the inestimable advantage of being able to regard diabetes from the twin standpoints of patient and physician; this informs his work with that unique personal quality which gives him his position in the diabetic world today and which makes his book still the most valuable of its type in the English language.

CHRONIC INDIGESTION.

THAT present day knowledge in medical science is to be garnered from monographs rather than text books is well illustrated in "The Common Causes of Chronic Indigestion" by Thomas C. Hunt.¹ This work is included amongst the "Minor Monograph Series" though the subject matter and the manner in which it is portrayed deserve a more imposing place in the bookshelves of medical study. Throughout the work the true physician is seen viewing his subject through a broadened vision, yet bringing a critical mind to bear on the detailed portions of his work. No undue weight is placed upon any evidence either clinical or pathological unless it be as conclusive as our inexact science and knowledge will allow. Frequently the reader is advised to marshal all his facts before forming an opinion. The work reads as if it were in reality the opinions formed by the author during extensive experience in the diagnosis and treatment of chronic indigestion. It is pleasing to note that many ideas which have formerly been accepted as fact and transferred from time immemorial, find little credence in these pages. The author may even be accused of heterodoxy when he states that in some cases diet without the aid of alkalis may prove sufficient treatment for a gastric ulcer. Better this, however, than slavish addiction to orthodoxy.

Whilst the chapters on ulceration, carcinoma, cholecystitis and appendicitis are well and ably written, the value of the book lies in the description of the less commonly discussed causes and the forms arising from such causes as functional disorders of the colon, arteriosclerosis and senility. Nervous indigestion gives the author scope for his facile pen with which he lifts his descriptions beyond the plane of mere recording of symptoms.

In a volume as complete as this it is only to be expected that diverticulitis of the colon should find a place. The description is enhanced by some very clear radiological prints. If we have any criticism to offer, it is to regret that whilst attention is drawn to the indigestion arising from or coincident with hypertrophic or chronic infective prostatitis, no mention is made of the indigestion that so often accompanies gynaecological disorders and responds more readily to a repair of the pelvic floor than to a cholecystectomy or caecopexy.

The easy flowing style of the author and the manner in which the subject matter is laid out in paragraphs with short headings make the book a very readable one.

Notes on Books, Current Journals and New Appliances.

AN INDEX OF VETERINARY PUBLICATIONS.

THE Imperial Bureau of Animal Health, England, has issued the first volume of the "Index Veterinarius". This publication will be particularly valuable to those engaged in animal research. It should find a place in every scientific library. It has been produced on a duplicator, and is for this reason somewhat bulky. This volume covers the indexing done at the Bureau of Animal Health during the first quarter of 1933. The literature from all countries has been included, and the titles of articles, other than those in French and German, have been translated into English. We have no doubt that this publication will prove so valuable that future numbers will be printed. The annual subscription to the publication is four pounds.

¹"The Diabetic Life, Its Control by Diet and Insulin: A Concise Practical Manual for Practitioners and Patients", by R. D. Lawrence, M.A., M.D., F.R.C.P.; Seventh Edition; 1933. London: J. and A. Churchill; Australia: Angus and Robertson. Demy 8vo., pp. 226.

¹"The Common Causes of Chronic Indigestion: Differential Diagnosis and Treatment", by T. C. Hunt, B.A., D.M., M.R.C.P.; 1933. London: Baillière, Tindall and Cox. Crown 8vo., pp. 348, with 16 plates. Price: 12s. 6d. net.

The Medical Journal of Australia

SATURDAY, FEBRUARY 3, 1934.

All articles submitted for publication in this journal should be typed with double or treble spacing. Carbon copies should not be sent. Authors are requested to avoid the use of abbreviations and not to underline either words or phrases.

References to articles and books should be carefully checked. In a reference the following information should be given without abbreviation: Initials of author, surname of author, full title of article, name of journal, volume, full date (month, day and year), number of the first page of the article. If a reference is made to an abstract of a paper, the name of the original journal, together with that of the journal in which the abstract has appeared, should be given with full date in each instance.

Authors who are not accustomed to preparing drawings or photographic prints for reproduction, are invited to seek the advice of the Editor.

POST MORTEM EXAMINATIONS.

In a journal such as this it should not be necessary to lay emphasis on the importance of *post mortem* examinations in medical practice. Medical practitioners know that *post mortem* examinations will be of enormous help to them in their study of disease, but relatively few, even in certain large hospitals, make any attempt to have autopsies carried out as a routine measure. It is true that they may become eager to have an examination made when the patient has died of some obscure ailment or when certain symptoms have not conformed to the clinical diagnosis. But there is a line of least resistance, or rather of no effort, that is easy to follow; and even when diagnoses are not clear and when opportunities for enlightenment arise, the easy road is often taken. The American Medical Association realized the difficulties when it was drawing up its scheme for the standardization of hospitals, and insisted that a hospital could not be graded as an "A" class hospital unless *post mortem* examinations were made in at least 15% of its deaths. It would be interesting to know the percentage of *post mortem* examinations carried out in Australian hospitals regarded by their controlling authorities as being in an "A" class.

Even with the best will in the world, it would be impossible under present Australian conditions to have autopsies carried out in 100% of cases. The only way in which this could be done would be by the introduction of legislation or of hospital by-laws to make *post mortem* examinations obligatory after every death occurring in an institution. At present there is more often than not a rooted objection on the part of relatives to the examination of the body of a deceased person. This has been discussed in an interesting way by Dr. William J. Hoffman at the annual meeting of the American Medical Association in June, 1933.¹ Dr. Hoffman states that the best asset of those asking permission to perform an autopsy is the confidence in the medical attendant shown by patients and their relatives during the patients' stay in hospital. He analyses the reasons for failure to obtain permission. He puts his reasons under eight headings. First of all there is the divided responsibility as to who should make the request. Then owing to delay in the making of a request relatives are given time to discuss the matter with other people and decide against granting permission. There is also "poor technique" in making a request; this involves the way in which, and the place where, it is made. The other reasons include indecision on the part of relatives, objections raised by professional people, personality conflicts, religious objections and miscellaneous reasons that include previous unhappy experiences of autopsies, the presence of too many relatives to allow of unanimity and so on. Dr. Hoffman instituted a routine procedure at the Memorial Hospital for Cancer and Allied Diseases, New York, and found that it worked well. He made one person responsible for gaining permission for autopsy. He had patients who were seriously ill placed on the "critical list" earlier than before and granted special visiting privileges to the relatives. He insisted on courtesy being shown to relatives: for example, all telephone inquiries from relatives were answered by the resident surgeon. He made the resident surgeon accessible to relatives for a certain period on each visiting day so that they might understand the patient's condition and become cognizant of the prognosis

¹ The Journal of the American Medical Association, October 14, 1933.

and of some of the difficulties in treatment and so forth. In this way he claims to have raised the percentage of cases in which *post mortem* examinations were made from 46.5 to 82.3. The bare outlines of Dr. Hoffman's scheme have been given; it will well repay perusal by all hospital superintendents. He shows that success depends on making a psychological study of the relatives of deceased persons.

If a method of working on the lines suggested by Dr. Hoffman were adopted in large hospitals, it would call for more attention to patients' relatives than they usually receive. It might mean the appointment of additional members to the staff. Such appointments would be worth while. Evidence has been forthcoming that in some teaching hospitals even patients who are obviously ill do not always receive common courtesy; relatives notice these things and store them in their memory. If admitting officers are so rushed with work that they fail in this matter, additional appointments should be made. Hospital boards should be made to realize that though the treatment of the individual patient for his illness must be the first consideration, the study of disease in all its aspects should be undertaken. This study can be completed only if efforts are made to carry out a *post mortem* examination after every death.

Current Comment.

UREA CLEARANCE TEST IN PREGNANCY.

THE effort to reduce medicine to statistics is perhaps a natural one in the present age. It is, however, a definite risk that a false accuracy may enter into the evaluation of biochemical tests if the degree of fluctuation of the normal is not taken into consideration. Renal function is one of the subjects which, as humorists have remarked, is apt to make the angry passions rise when enthusiasts of diverse schools of thought enter the lists. It is so essential to seek all possible information that may help in the assessing of the prognosis in renal conditions that the clinician has grasped eagerly at the help of the biochemist in estimating the functional capacity of the kidneys. It may be said truly that the help thus given has been invaluable, but a knowledge of the essential limitations of these tests is vital, for it is the slavish adherence to the figures of the blood urea and urea concentration and clearance tests that retard instead of advancing clinical

science when all the clinical facts are not equally stressed with the chemical findings. This warning again comes to light in an article on the value of the urea clearance test in pregnancy by A. Cantarow and G. Ricchiuti.¹ The importance of any work bearing upon the toxæmia of pregnancy will be admitted as obvious. It is not infrequently found that a pregnant woman shows some signs of functional disturbance of the kidneys: the question of determining the significance of the urinary changes may then require more investigation than the ordinary systemic examination *plus* microscopy of the urinary sediment, which is, indeed, a more searching test than commonly employed in average practice. These authors have investigated forty-seven pregnant women, thirty-nine of whom were apparently normal, seven were suffering from chronic glomerulonephritis, and one from cardiac failure. The urea clearance tests were carried out during the last two months of gestation, and any correction needed for body surface was made. It was found that as the pregnancy advanced the clearance diminished, but the values found for the normal cases showed an extreme degree of variation. This normal group varied from 28% to 184% of the average normal for healthy subjects. As might be expected, the figures for the patients known to be suffering from nephritis were low, ranging from 20% to 51% of the normal. The patient with cardiac failure gave a figure of 70%. According to the work of Van Slyke and his associates, the "normal" group in this series might be assigned the average minimum limit of 75%, though lower figures in allegedly normal subjects have been reported. Even allowing for this, it will be seen that these patients represent in their tests an unusually elastic range of urea clearance. It is suggested that these variations are due to a number of factors, including changes in the total metabolism and the protein metabolism, development of the fetus, and variations in the blood flow through the kidneys. Therefore there is reason to believe that the urea elimination of the pregnant woman is not invariably subject to the more or less definite mathematical laws of the ordinary person. Moreover, the figure obtained in any given case seems naturally to decrease as term approaches, a rather unfortunate complication, even if it be not other than physiological, for it is at this time that the most accurate information is required.

The value of this piece of work is rather negative than positive, for there was no evidence that any importance could be attributed to the lower readings in most cases. But the authors have attacked the problem from an entirely correct point of view. No observations are of the slightest use unless an accurate standard is first established. Perhaps future work will enable us to say what are the expected variations and fluctuations from the average in the urea clearance figures of pregnant women, but at present all we can say is that any inferences drawn from the test are to be subject to correction and amplification by the usual clinical methods. The cynic may say that this is to be expected as the

¹ Archives of Internal Medicine, October, 1933.

usual result of diagnostic short cuts, but there is more in the question than that, for it is such an important subject, being bound up with the most vital branch of obstetric work, ante-natal care, that too much light cannot be shed upon it. One very important point may be re-stated in conclusion. Where an unusually low urea clearance figure is found in the late months of pregnancy, no rash conclusions of impaired renal function should be drawn, but further intensive clinical and laboratory observations are desirable in order to discover any early signs of renal dysfunction. In this way will the patient be safeguarded and will knowledge grow.

CAPILLARY CIRCULATION.

THE capillaries of the blood vascular system, the last link in the chain of continuous circulation to be discovered, perhaps remain one of the most obscure parts of the mammalian circulatory equipment. Their great importance is, of course, realized by all interested in physiology and pathology, but because their study is rather of the academic order, and makes little impingement on bedside routines, little interest is taken in the subject except by the research worker. But the practical side of medicine does not only concern purely clinical diagnostic methods; unless the practitioner makes some attempt to visualize the normal and morbid vital processes at work in the body entrusted to his care, he tends to become an empiric. As F. R. Miller remarks in the course of a post-graduate lecture on the capillary circulation, the discovery that the capillaries are contractile and dilatable is itself revolutionary, involving implications of the widest importance for practical medicine and surgery.¹ Much remains unsettled, as he points out in this summary of recent accretions of knowledge. The so-called Rouget cells that form a very sparse and scattered investment for some of the capillaries have been thought to be responsible for the power of contraction the channels possess, in conjunction with the system of fibrils that wind round these endothelial tubes, but this is doubtful; Aschoff and others regard them as part of the reticulo-endothelial system. Dilatation of the capillaries is now, since the great work of Lewis, ascribed to the liberation of a histamine-like substance through the antidromic impulses arising from nerve stimulation or through direct irritation. Animal experiment has established the existence of direct nervous control of capillaries. A further valuable review of our knowledge of the capillary system is given in an article by I. S. Wright and A. W. Duryee.² These workers have made extensive studies of the subject from the clinical aspect as well, and link up the available information concerning the normal with the observed state of the capillaries in disease. They publish a number of excellent illustrations of photographs of capillaries of the human nail-bed, and it may be remarked that this now well-known method of direct microscopy of these vessels has proved full of interest and is a

research method promising further useful revelations. They present a useful summary of capillary function, which includes variations in calibre, and therefore rate of flow and pressure, and also variations in permeability. The latter may be practically demonstrated by a comparison of the percentage of protein found in blister fluid and in the blood serum. Peristaltic contractions have been described by some observers, but Wright and Duryee subscribe to the belief that the appearances that suggest this are in reality due to gaps in the flow of blood columns. In arterial hypertension the capillaries are usually found to be more tortuous than usual, and Wright and Duryee state that though this finding is not invariable, they have never observed it in hypertension. The degree of tortuosity is apparently not of necessity related to the capillary pressure, which is not always raised above the average normal in hypertension. A good deal of interest has been roused in the condition of the general body capillaries in acute nephritis, for the tendency in considering some forms of renal disease is to look not only in the kidney for pathological changes, but beyond it. However, the authors do not find any constant morphological changes in the capillaries in acute nephritis, though rate of flow and pressure are increased. In certain diseases the findings are just what would be expected; thus it is not surprising that in polycythemia the number of active capillaries is increased. In Raynaud's disease observations show that the stasis found is not due to venous congestion, but to changes on the arterial side of the loop. Those interested in the surgery of the sympathetic nervous system will perceive the importance of this observation. In arthritis, an ailment also the subject of experimental vascular surgery, the position is much less definite. The work of Kovacs is quoted, showing that there is no valid evidence that poor capillary circulation is responsible for the pathological changes, and emphasizing the fallacy inherent in arguing from changes observed in the skin capillaries to those that may or may not exist in the smaller blood channels of the joints. Among other pathological states that have been studied from this angle is the condition of clubbing of the fingers. Here the capillary changes, such as dilatation and sluggishness of flow, are by no means constant, and, conversely, such changes may exist for long periods without clubbing supervening. It will be seen that a great deal of the information available concerning the capillary circulation in morbid states is confusing and contradictory. But so much knowledge has been added in the few years that have elapsed since these studies were begun that one cannot doubt that much practical information is yet to be gleaned. When one reflects that accurate ideas concerning surgical shock are but comparatively recent, and that the place of sympathetic nerve surgery in vascular disease is only becoming defined, it would be rash to dismiss the subject of capillary circulation study as academic only. As in many other instances in the past, it is probable that both doctor and patient will yet profit by the work that is as yet not half done.

¹ The Canadian Medical Association Journal, September, 1933.

² Archives of Internal Medicine, October, 1933.

Abstracts from Current Medical Literature.

THERAPEUTICS.

Acetyl β -Methylcholin.

I. STARR *et alii* (*The American Journal of the Medical Sciences*, September, 1933) describe observations on the effect of acetyl β -methylcholin (2.5 to 25.0 milligrammes injected subcutaneously). In healthy persons, flushing, sweating, salivation, slight fall of blood pressure, and increase in pulse rate were noted, lasting for about fifteen minutes. One subject was attacked by asthma immediately, the attack lasting three minutes. When the drug was given by mouth in doses of 50 to 1,000 milligrammes, a gradual fall of blood pressure and a slower pulse rate were noted, lasting for one-half to one hour. Increased gastrointestinal peristalsis was noted, and the bowels were moved two or three times, unless inhibited by atropine; and this drug tended to diminish the other effects of the acetyl β -methylcholin.

I. STARR (*ibidem*) reports the action of acetyl β -methylcholin in paroxysmal tachycardia and peripheral vascular disease. The injection of 5 to 50 milligrammes of this drug subcutaneously was followed by a return to regular and normal rate of heart action almost at once in twenty attacks of paroxysmal tachycardia in nine patients. Carotid pressure in some cases assisted this action. In Raynaud's disease 100 milligrammes of this drug given by mouth warmed the extremities, except on very cold days; a similar effect was noted in *thrombo-angiitis obliterans*, and doses of 500 milligrammes night and morning relieved pain in the feet in threatened gangrene. Subcutaneous injection of ten to twenty milligrammes was followed by severe sub-sternal pain in one case.

W. O. ABBOTT (*ibidem*) discusses the action of acetyl β -methylcholin. He found that gastro-intestinal peristalsis was increased and in three cases abdominal distension was relieved after the administration of 200 to 300 milligrammes by mouth, either once, or, as in one case, thrice daily for two to five days. Twenty milligrammes given subcutaneously had a similar good effect when the rectal tube was used. In two cases the distension was post-operative. Nausea and salivation accompanied or preceded the passage of flatus, which continued for an hour or more.

Intravenous Vaccine Therapy in Chronic Arthritis.

WILLIAM B. RAWLS, B. J. GRUSKIN AND A. RESSA (*Annals of Internal Medicine*, November, 1933) record the results of the intravenous use of phenolised autogenous vaccine pre-

pared from organisms with high agglutinin titres in 100 cases of chronic arthritis. The injections were given once or twice a week, and in order to avoid general reactions they gave doses of a much smaller order than those suggested by other writers. The authors' average initial dose was ten to twenty organisms, depending on the severity of the disease. Dosage was increased by 10% for the first few doses and if progress was satisfactory no effort was made to increase the dose more rapidly. If the patient's condition remained stationary after several injections, the dose was increased by 15% to 25%. In some cases a greater percentage of increase was tolerated, but in one such case it gave rise to a severe focal reaction from which the patient had not recovered six weeks later. The authors state that if a reaction occurs to any injection, the dose must be reduced; and they have drawn up a table indicating the percentage of reduction according to the severity of the reaction. The criteria on which the authors base their conclusions were: reduction in pain, swelling and stiffness, lessening of deformity, improvement in constitutional symptoms and, lastly, lowering of the sedimentation rate. An attempt was made to determine the percentage of improvement based on the above criteria, and any patient with less than 25% improvement was considered unimproved. On this basis, of the rheumatoid group of 43 patients 81% were improved, whilst 77% of the 52 mixed infections showed a change for the better. Improvement was in general inversely proportional to the duration of the disease.

Magnesium Sulphate in Hypertension.

BURTON L. ZOHMAN AND BERNARD STERNBERG (*Annals of Internal Medicine*, November, 1933) discuss the effects of the intravenous injection of magnesium sulphate on the systolic and diastolic blood pressures and on the symptoms of hypertension. Although the pathogenesis of hypertension is obscure, the varied factors likely to produce a raised blood pressure include toxic states, infective or endogenous, metabolic and endocrine disturbances, abnormal conditions of the central nervous system and also psychic factors. In any particular case of hypertension many of these influences may be at work. Magnesium is a chemical capable of counteracting many of these forces, but two effects are outstanding, namely, relaxation of smooth musculature and a sedative action on the nervous system. In the first ten of their series of consecutive cases the writers used 0.1 gramme of pure anhydrous magnesium sulphate per kilogram of body weight in the form of a 12.5% solution. This concentration was apparently too great, in that it caused subjective heat sensations in some patients. For the remainder of the series they used a 2.5% solution,

injecting 0.035 gramme per kilogram of body weight. Apart from one case of syncope that was encountered amongst the first ten cases, the patients experienced no untoward reaction. The solution was administered at the rate of 100 cubic centimetres in thirty minutes. A single injection had a distinct effect in reducing the systolic pressure in forty cases, and this reduction was maintained at the rate of two weeks during which the patients were observed. The diastolic pressure was also lowered in twenty-five cases, but in only twenty-one of these did it remain at the lower level for the two weeks. The simple reduction of blood pressure, however, did not necessarily afford relief of symptoms for which the patients came for treatment. The writers also observed the effect of the parenteral injection on the following symptoms: headache, insomnia, vertigo, hot flushes, head noises and nervousness. There was a definite ameliorating effect on these symptoms in the majority of patients treated. As all patients complained of a multiplicity of symptoms, it was encouraging to find in those who responded to the treatment, an improvement in every respect.

Treatment of Urinary Infections in the Puerperium.

A. T. FULLER AND L. COLEBROOK (*The Lancet*, September 30, 1933) describe the treatment of puerperal urinary infections by a ketogenic diet. About 25% of the patients admitted to the isolation block of Queen Charlotte's Hospital with puerperal fever have or develop a bacterial infection of the urinary tract. Till June, 1932, these were treated conventionally with citrate of potash, fluids and occasionally antiseptics. Since then such patients have been treated without drugs, and have been put on a diet rich in fats and poor in carbohydrates with the object of producing ketonuria. The bactericidal effects seem to be chiefly dependent on the amount of β -oxybutyric acid present plus a sufficient degree of acidity. The bacilluria usually terminated abruptly as soon as these conditions were obtained. The diet finally arrived at and given to all patients, irrespective of their weight, except in exceptional cases, was: Fat, 250 grammes, of which 150 grammes were in the form of cream; 75 grammes in three ounces of butter, which was spread on gluten rolls and used in making scrambled eggs, and 25 grammes in the form of meat or bacon fat; carbohydrate, 10 grammes, was practically all contained in vegetables and fruit; protein, 80 grammes, which could be cut down if desired, was given in meat, fish, eggs, gluten rolls and St. Ivel cheese. In order to avoid too long a period without fat absorption, it is advisable to give a cup of cocoa with an ounce of cream in the middle of the night. Out of 54 patients adequately observed, 24 had sterile urine within 17 days, the average

being nine days. In ten cases the urine was sterile within a week. In 22 cases even moderate ketosis was not produced, for which no reason could be given. Only in three or four cases had the diet to be discontinued on account of nausea or diarrhoea. The ketone content of the urine should be measured from day to day, the daily output of urine recorded, and its acidity determined colorimetrically. The diet has seldom to be continued for more than fourteen days. Few, if any, patients with high fever, however, could take the strict diet.

Nucleic Acid Derivatives in Agranulocytosis.

WILLIAM DAMESHEK (*New England Journal of Medicine*, November 23, 1933) reports a series of three consecutive patients suffering from agranulocytosis who were treated with nucleic acid derivatives, and all of whom recovered. He points out that in the "pre-nucleotide era" the mortality was variously estimated at 75% to 95%, whereas since the introduction of these therapeutic agents in 1930 by Reznikoff the mortality rate has fallen to 25%. In the cases reported, pent-nucleotide and adenine sulphate were the two derivatives used. Response to the intravenous injections of 0.5 gramme of adenine sulphate was dramatic, for the total leucocyte count rose from 2,800 to 13,000 the following day, with 95% polymorphonuclear cells. There was in this patient no untoward clinical reaction. The hematological improvement following repeated intramuscular injections of 10 cubic centimetres of pent-nucleotide was slower in manifesting itself, for it was seventy-two hours before myelocytes and metamyelocytes were discovered in the peripheral blood. Clinical improvement was slower still, temperature rising frequently to 40° C. (104° F.). The author considers that these derivatives appear to be of specific value in the treatment of agranulocytosis and may be compared in specificity with liver extract in pernicious anaemia, the failures of the treatment apparently being due to the use of the drug in leucopenia secondary to severe sepsis, aplastic anaemia or aleukaemic leukaemia.

NEUROLOGY AND PSYCHIATRY.

Prevention of Dementia Praecox.

H. L. LEVIN (*New York State Journal of Medicine*, July 1, 1933) draws attention to the growing magnitude of the dementia praecox problem, which disease, he says, incapacitates more individuals than does cancer or tuberculosis. He claims the prevention of dementia praecox is the largest medical problem of to-day. He mentions the five following types of "shut-in" personality which may be the forerunner to adult dementia praecox: (i) The "inadequate" child who, while not

feeble-minded, is lacking in ambition and does not make use of his intellectual or physical powers; (ii) the "precocious" type who may possess a brilliant intellect, but is incapable of forming friendships and becomes solitary; (iii) the "neurotic" child, who seeks refuge from responsibility under the shelter of various bodily ailments; (iv) the "day-dreamer", who shuns normal activity for the cloistered delights of fantasy; (v) the "juvenile" type, who never reaches emotional maturity. The author quotes patients with dementia praecox, and compares them with others who showed all the traits of praecox personality, and were yet able to be put right by timely child guidance. He believes that proper psychiatric intervention has the power to vitiate some of the malignant elements in the personality which, if allowed to develop unchecked, will lead on to dementia praecox. He considers it unlikely that any brilliant biochemical remedy will be discovered for the cure of a condition so pre-eminently psychogenic in origin, and he therefore urges the claims of child guidance upon the attention of the family physician, the nurse, the parent and the teacher; in fact, upon all those whose calling brings them in contact with the growing child.

The Effect of Malaria on the Brain of Paretics.

NICHOLAS KOPELOFF AND NATHAN BLACKMAN (*American Journal of Psychiatry*, July, 1933) have made exclusive histological studies of the brain of paretics. They used the staining methods of Jahnke, and were able to detect spirochaetes in six out of thirty-nine brains of paretics who had previously been treated by malaria. Of the six brains in which the spirochaetes were demonstrated, more degenerate forms than normal looking spirochaetes were found. The same organisms were demonstrated in eight out of ten brains of paretics not treated by malaria; and the authors conclude that malaria tends to destroy the spirochaete completely or at least to alter its form in such a way as to give it a degenerate appearance.

Sleep Paralysis.

MAX LEVIN (*The Journal of Neurology and Psychopathology*, July, 1933) reports a case of sleep paralysis and considers the pathogenesis of narcolepsy. He describes narcolepsy as a syndrome characterized by cataplexy and morbid sleepiness, cataplexy being a transitory paralysis with tonelessness occurring in response to sudden emotion (usually laughter). Some two hundred cases of typical narcolepsy have now been recorded in the literature. In some sixteen of these a description of sleep paralysis has been given. Sleep paralysis, according to this author, may occur when the subject is just about to fall asleep or immediately upon waking.

The first is referred to as predormital or hypogogic paralysis, and the latter as post-dormital or hypnopompic paralysis. The paralysis may be local or general. If general, the patient is unable to move or to utter a sound. This paralysis may last as long as a few minutes and is often accompanied by a sense of anxiety when the paralysis occurs when the patient is falling asleep. Post-dormital paralysis is said to be the commoner variety. It is sometimes accompanied by fleeting hallucinations of sight or hearing. The condition passes away suddenly, leaving the subject perfectly normal. In the case reported upon in this paper in which sleep paralysis first became manifest in a single woman of twenty-one years, cataplectic attacks subsequently occurred, and a few months later the patient began to have attacks of paroxysmal hypertonia in which she became stiff and unable to move for several minutes. Such attacks seem always to have been precipitated by sudden fear. The author considers in detail the work of Pavlov in relation to narcolepsy, morbid somnolence, cataplexy and sleep paralysis.

Lumbar Puncture in Intracranial Hypertension.

WALTER F. SCHALLER (*The Journal of Neurology and Psychopathology*, October, 1933) considers that in recent years there has appeared a growing prejudice against the performance of lumbar puncture in view of the belief that the contents of the posterior fossa may herniate into the foramen magnum with serious or fatal outcome. He details certain experiments which seem to show that there is no proof of any herniation following spinal tap, but that there is reason to believe that the so-called herniation is an expression of general brain swelling and oedema, which may be brought about by changes in the intracranial pressure, vasomotor paralysis and shock from various causes. Sudden and excessive withdrawal of fluid, he believes, may cause such oedema. Examination of clinical material would tend to show that the incidence of post-puncture accidents is greater in supratentorial than in infratentorial tumours, and that the incidence of sudden death is greatest in vascular lesions. In the performance of a lumbar puncture (which this author considers a safe and justifiable procedure because of the valuable diagnostic information it affords), it is considered essential to test the patency of the cranio-spinal pathways by means of jugular compression. Fluid should not be withdrawn if there is evidence of a cranio-spinal block or if the fluid is xanthochromic, because this latter may indicate a soft vascular tumour in danger of hemorrhage. Not more than five cubic centimetres of fluid should be drawn from patients suspected of having a tumour, and in all cases the cause of safety is served if the fluid is withdrawn very slowly, drop by drop.

British Medical Association News.

SCIENTIFIC.

A MEETING OF THE NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION was held at the Royal Alexandra Hospital for Children, Sydney, on August 24, 1933. The meeting took the form of a series of clinical demonstrations and an exhibition of radiograms and museum specimens.

Congenital Syphilis.

DR. P. L. HIPSEY showed a male patient, aged nine years, who had been admitted to hospital three and a half months previously, suffering from a painful swelling of the right knee of one month's duration, and pain in the left knee of one week's duration. At the time of admission he was able to walk with a limp. His general health had been good. He was a pale child, his teeth were badly formed, and there were scars at the angles of his mouth. There was a diffuse periarticular swelling of both knee joints. There was slight limitation of movement, and there was some pain on full flexion or extension. X ray examination revealed thickening of the periarticular tissues and the presence of fluid in the right knee joint. The blood reacted to the Wassermann test. On June 2 the patient was seen by Dr. Gregg, who reported that there was a condition of interstitial keratitis. Antisyphilitic treatment had been instituted.

Osteomyelitis of the Vertebrae.

Dr. Hipsley's next patient was a girl, aged twelve years, who had been admitted on December 22, 1932, when she had been suffering from a severe pain in the back for five days. She was unable to bend her neck, and had been feverish. She stated that her feet had seemed to be "asleep" for one day. She was unable to move her right leg. At the time of admission, her abdomen was stiff and tense, her pupils reacted normally, the knee jerk was absent on the right side, Babinski's sign could be elicited on both sides, neck rigidity and Kernig's signs were pronounced. At lumbar puncture, five cubic centimetres of fluid under normal pressure were removed. Poliomyelitis immune serum was given. An abscess in the back was incised, and pus and sequestra were removed. The pus was found to contain *Staphylococcus aureus*. On December 26, 1932, laminectomy of the fourth and fifth thoracic vertebrae was performed, and pus was found in the spinal canal. On December 29, 1932, X ray examination revealed early osteomyelitis of the eighth thoracic vertebra, and on January 30, 1933, some involvement of the seventh thoracic vertebra and the seventh and eighth ribs on either side and slight forward displacement of the seventh on the eighth thoracic vertebra. On April 8, 1933, the X ray report was to the effect that bone destruction appeared to have been arrested, and that there was much new bone formation. During the child's stay in hospital she developed pyelitis caused by *Bacillus coli*. Sensation had improved slightly, but was still greatly impaired at the time of the meeting; there was very little power in the lower limbs.

Chronic Bronchitis.

DR. R. A. R. GREEN showed a girl suffering from chronic bronchitis. The cervical glands had been swollen for six weeks, and the child had been feverish for two weeks. X ray examination revealed well marked chronic bronchitic changes, with possibly some bronchiectasis in the left cardio-phrenic angle; there was also some thickening of the interlobar pleura on the right side and of the pleura in the right costo-phrenic angle. The ethmoidal sinuses and the maxillary antra were "dull".

Splenomegaly.

DR. E. H. M. STEPHEN showed a male patient, aged six and a half years, who had been admitted on May 1, 1933, on account of splenic enlargement. He had been sick

for three weeks, with fever and sleepiness. There was no history of previous illness; but the patient had been pale since birth. At the time of admission he was pale and quiet, but apparently not feeling ill. He was emaciated and dirty and appeared to have been neglected. There were septic sores on the face and a boil on the neck. The abdomen was soft, full and "doughy". The spleen was enlarged, the lower border reaching the iliac crest; it was firm and not tender. The tonsils were slightly enlarged, but there was no enlargement of lymphatic glands. X ray examination of bones and lungs revealed no abnormality. The red blood cells numbered 2,990,000, and the leucocytes 5,500 per cubic millimetre. There were 3,850 polymorphonuclear leucocytes, 660 lymphocytes, 220 monocytes, 770 eosinophile cells and 170,000 platelets per cubic millimetre of blood. The haemoglobin percentage was 54. On May 11, 1933, the red cell count had increased to 3,600,000, the leucocyte count to 6,500, and the eosinophile cell count to 1,820. The urine contained occasional red blood cells and a few renal cells and leucocytes. There was no reaction to the Van den Bergh or the Wassermann test. On May 30, 1933, he was sent to the Convalescent Home at Collaroy, where he was not confined to bed; his temperature rose above normal every evening, sometimes to 40° C. (104° F.). He gained a little over a kilogram (two and a quarter pounds) in weight, and was readmitted to the Royal Alexandra Hospital for Children on June 27, 1933. On June 30, 1933, a sample of blood was taken for culture; but no organism grew. On July 12, 1933, X ray examination revealed a cavity in the anterior part of the middle lobe of the right lung. On July 17 there was a reaction to the Casoni test and the complement fixation test for hydatid. On July 26 the radiologist reported that there was no change, and that the appearances were suggestive of tuberculosis rather than hydatid.

Pink Disease.

Dr. Stephen also showed two patients, aged seventeen months and thirteen and a half months respectively, suffering from pink disease. One of them was being given chloretone in a dose of 0.06 gramme (one grain) every six hours and dilute hydrochloric acid in a dose of 0.3 mil (five minims) three times a day before meals.

Osteogenesis Imperfecta.

DR. R. B. WADE showed a male patient, aged one year and seven months, who had fractured his femur in two places in December, 1932, and again through the callus in February, 1933; fracture of the same bone had occurred after a fall on July 20, 1933. X ray examination revealed a fracture of the femur 2.5 centimetres (one inch) below the lesser trochanter and evidence of an old fracture 7.5 centimetres (three inches) above the knee; bony changes suggestive of *osteogenesis imperfecta* were present.

Residual Paralysis Treated by Tendon Transplantation.

Dr. Wade also showed a girl, aged ten years, who had suffered from acute poliomyelitis at the age of thirteen months. There was some residual paralysis of the lower extremities. The following operations had been performed: in 1926, transplantation of *biceps femoris* tendon to the patella; in 1930, tenotomy of the *tendo Achillis*, suture of tendon of the *tibialis anterior* to tendons of both peronei; in 1931, transplantation of the semimembranosus into the quadriceps tendon; in 1933, transplantation of the patellar ligament medially.

Flail Shoulder.

DR. J. SHEDDEN DAVIS showed two patients who had suffered from flail shoulder, the result of infantile paralysis. The shoulder had been ankylosed by operation. Remarkable increase in the range of voluntary movement had resulted.

Post-Nasal Sarcoma.

DR. W. RAMSAY BEAVIS showed a patient, aged eight years, who had suffered from a swelling of the right side of the face and a discharge from the right nostril for a

period of two months prior to admission on May 30, 1933. There was no reaction to the Wassermann test. A portion of a tumour in the post-nasal region removed at biopsy was examined histologically. It was found to consist mainly of fibrous tissue; but there were some areas with hyaline matrices, mucoid and cartilaginous patches and one very small calcified spot; the appearances were suggestive of teratoma or fibroma with metaplastic elements. X ray examination on July 10, 1933, revealed destruction of the lateral and posterior walls of the right antrum, due to a neoplasm.

Hæmolytic Anæmia of the Newly Born.

DR. MARGARET HARPER showed three patients suffering from hæmolytic anæmia of the newly born. At the time of admission red blood cells numbered 980,000, 1,330,000 and 1,200,000 per cubic millimetre, and the hæmoglobin percentages were 23, 30 and 26, respectively. A transfusion of 120 cubic centimetres (four fluid ounces) of citrated blood was given shortly after admission in each case. At the time of the meeting the red blood cell counts were 4,690,000, 3,430,000 and 3,920,000 per cubic millimetre, and the hæmoglobin percentages 59, 53 and 56, respectively.

Pituitary Dystrophy.

DR. L. DODS showed four patients whose history and appearances were suggestive of dystrophy of the anterior lobe of the pituitary gland.

The first of these patients was a male, aged two years and ten months. He was an only child of healthy parents. There was no familial illness of any significance. The weight at birth was 2.7 kilograms (six pounds). He was breast fed for six months; but, despite an adequate intake, he gained only 1.8 kilograms (four pounds) during this period. He was then given cow's milk; but at the end of twelve months he weighed only 6.3 kilograms (14 pounds). He was unable to sit up until he was seven months old, and did not stand until he was eighteen months old. During the first eighteen months of his life his mother noticed remarkable brown pigmentation of the skin whenever he was exposed to the sun. At the time of the meeting, the child had a prematurely aged expression; his height was 80 centimetres (32 inches); his weight was 13 kilograms (29 pounds); length from cranium to *symphysis pubis* was 43.75 centimetres (17½ inches); the skull was small. There was obvious hypogonadism. X ray examination revealed no abnormality of the *sella turcica*. The urine was normal in quantity and constitution. The response to the glucose tolerance test was normal. The fundi were normal. The child had been given injections of "Antuitrin S", at first on alternate days, then twice a week, then once a week, over a period of four months, without any improvement in sexual development.

Dr. Dods's next patient was a boy, aged six years and eight months, whose height was only 87.5 centimetres (35 inches) and weight 12.6 kilograms (28 pounds). The distance from cranium to *symphysis pubis* was 46.25 centimetres (18½ inches). He weighed four kilograms (nine pounds) at birth, and 9.4 kilograms (21 pounds) at twelve months. His progress seemed normal during his first year. In his fourth year his parents first noticed failure of growth and sexual development. Examination revealed a bright attractive child of infantile proportions, with smooth soft skin and silky hair; there was obvious hypogonadism. At X ray examination the *sella turcica* appeared to be normal, and the osseous development appeared to be that of a child aged about three years. There was no reaction to the Wassermann test; the fundi were normal, and there seemed to be no contraction of the fields of vision. One hour after the administration of glucose for the glucose tolerance test, the blood sugar content rose precipitately to 305 milligrammes per 100 cubic centimetres of blood; but there was no glycosuria. The urine was not increased in quantity. The child was given a series of injections of "Antuitrin A", over a period of five months, without any obvious improvement in his sexual development or physical growth.

Dr. Dods's next patient was a boy, aged five years and seven months. There was nothing of significance in the family history. The boy was born prematurely; but his progress during infancy was normal. He had had no serious illness. Examination revealed that he had an adult type of facies; there was hair on the face and forearms; both testes were undescended; his height was 95 centimetres (38 inches) and his weight 19.3 kilograms (43 pounds); the distance from cranium to *symphysis pubis* was 50 centimetres (20 inches). The fundi were normal. The urine was normal in amount and, apparently, in composition. There was no reaction to the Wassermann test. X ray examination revealed no abnormality in the skull. There was evidence of increased tolerance of glucose.

The fourth of Dr. Dods's patients was a boy, aged eighteen months, who had been admitted on August 14, 1933. The patient was one of a family of three, the remaining two of which were normal. The child weighed 3.6 kilograms (eight pounds) at birth, 17 kilograms (38 pounds) at ten months, and 15.3 kilograms (34 pounds) at the time of admission. The parents stated that he had always been too big for his age, but had always been healthy. He was a very fat child, larger than normal in every particular; his skin was dry and scaling. The distance from cranial vault to *symphysis pubis* was 50 centimetres (20 inches) and from *symphysis* to soles of feet 36.25 centimetres (14½ inches). The tonsils were enlarged; but there was no other evidence of organic lesion. X ray examination revealed an unusually small pituitary fossa.

Scurvy.

DR. LINDSAY DEY showed a female patient, aged eight months, who had been fed on a mixture consisting of six parts of cow's milk and five parts of water, with sugar added. No orange juice or cod liver oil had been given. One month before admission her legs became painful, and at the time of admission she would not move them, keeping the knees flexed. There was swelling above the knees. X ray examination revealed evidence of scurvy in all the bones; there were subperiosteal hæmatomata at the distal ends of the femora.

Caries of the Spine.

DR. F. C. ROGERS showed a male patient, aged ten years, who had been admitted to hospital on October 25, 1932, with a history of tuberculous caries of the spine of eight years' duration. For six months prior to admission he had suffered from abdominal pain and difficulty in walking. X ray examination revealed a tuberculous lesion involving the first three thoracic vertebrae, causing collapse of the bodies and angulation; there appeared to be no disease of the lumbar region or the lower part of the thoracic region. During the child's stay in hospital slight improvement in his symptoms had resulted from the application of extension to the head.

Chronic Arthritis of the Knee.

Dr. Rogers also showed a male patient, aged seven years, who had been admitted to hospital on May 15, 1933, with a history of having fallen and scratched his right knee six days previously. He had complained of pain in the thigh and hip the night after the injury, and had been unable to walk from then on. X ray examination on May 15, 1933, revealed no abnormality; on June 30, 1933, swelling of soft tissues; on July 24, 1933, widening of joint space and lifting of patella, but no involvement of bone. There was no reaction to the Wassermann, von Pirquet or Mantoux test. There was slight anæmia; the leucocytes numbered 8,450 per cubic millimetre of blood on May 22, and 12,200 on August 21, 1933. At the time of the meeting the knee was still greatly swollen.

Enlarged Thymus.

DR. D. G. R. VICKERY showed a female infant, aged four months, who had first come under observation on July 6, 1933. It was stated that the child had been subject to "heavy breathing" since birth; this had been most pro-

nounced when she had cried or become excited. The baby had firm muscles and was healthy in appearance; there was a guttural stridor, which was especially pronounced when she cried. She did not become cyanosed. The area of impairment of the percussion note was increased in the region of the upper end of the sternum. X ray examination revealed a great widening of the shadow of the upper part of the mediastinum, probably due to an enlarged thymus. On August 3, 1933, the application of deep X ray therapy was commenced at the Royal Prince Alfred Hospital. On August 18 the breathing had greatly improved.

Dr. Vickery also showed a male patient, aged twelve months, who had come under observation six months previously. The mother stated that the child had had "difficult guttural breathing since birth", that he took "pale turns" and "was not getting on as he should". When examined in February, 1933, the child was unable to control his head; he had heavy features, and his mouth was open; his complexion was sallow; he had some nasal obstruction. He had a very weak cry, and his muscles were toneless. The chest was asymmetrical, the left side being rounded and expanded and the right flattened laterally. There was poor movement of the right side of the chest. There was impairment of the percussion note over the upper end of the sternum and to the right. The child became cyanosed when he cried, and he made a guttural noise when breathing deeply or crying. X ray examination revealed a large mass on the mediastinum, extending from above, "along the right side of the cardiac shadow, with slight displacement of the trachea to the right". The radiologist's report concluded with the words: "Probably enlarged thymus, possibly lymphosarcoma."

On March 22 deep X ray therapy was commenced at the Royal Prince Alfred Hospital. Two weeks later the breathing was better and the cry stronger. On May 17 the breathing was unobstructed, and the chest more symmetrical in shape. It was thought that the patient also had some thyroid deficiency; thyroid extract was being given.

A MEETING OF THE OPHTHALMOLOGICAL SECTION OF THE VICTORIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION was held at the Victorian Eye and Ear Hospital on August 15, 1933, Sir James Barrett, the President, in the chair.

Blindness.

Sir James Barrett opened a discussion on the definition and certification of blindness. The meeting approved of the following:

1. Total blindness was inability, with both eyes, to count fingers at one metre in any circumstances.
2. Partial blindness was vision between $\frac{1}{200}$ and ability to count fingers at one metre in any circumstances. Vision better than $\frac{1}{200}$ might be regarded as partial blindness in special circumstances, for example in the presence of nystagmus, albinism, high myopia, marked contraction of fields of vision *et cetera*.

It was thought that there should be a distinction made between benefits received by the totally blind and the partially blind.

Invalid Pensions for Defective Vision.

It was resolved on the motion of Dr. Leonard Mitchell, seconded by Dr. Gault:

- That no person be certified as blind until he or she be examined by a medical practitioner with special experience in ophthalmology. And that the certificate shall state the vision and the causes of blindness, (primary or remote).

It was decided to ask the Victorian Branch of the British Medical Association to confer with the Federal authorities on this matter.

NOMINATIONS AND ELECTIONS.

THE undermentioned has been nominated for election as a member of the New South Wales Branch of the British Medical Association:

Shayler, William Ernest, M.B., B.S., 1929 (Univ. Sydney), Newcastle Hospital, Newcastle.

Correspondence.

NEPHRITIS AND LEAD POISONING.

SIR: Allow me to take up the cudgels on behalf of the small band of lead nephritis workers.

During my twenty years of experience, firstly as a physician at the Hospital for Sick Children, Brisbane, and later as a general practitioner with a large suburban practice, I have observed large numbers of children whose main symptoms were anorexia, anaemia, paresis, paralysis, convulsions, blindness, mental and physical lassitude, pains in the lower limbs, colic and stunted growth. On examination, one finds the classical blue line in the gums, basophilic degeneration, apyrexia, habits of nail-biting or thumb-sucking, and powdering lead paint on the veranda railings.

These cases have all improved when treated by salines, iodides, ionic medication and massage. In the acute cases with encephalopathy, lumbar puncture sometimes gives dramatic results.

If these cases are not due to plumbism, we shall be grateful to any opponents who can convince us to the contrary and thereby establish some new disease entity.

Ten years ago cases of this description were very numerous in South Brisbane, and during seven years of work as a medical inspector of schools, the average number of fresh cases reported by me for the disability of plumbism was 70 in 1,200; but during the later years there was a marked falling off in the number of fresh cases owing to the earnest and strenuous efforts of those hardy campaigners, Dr. Jefferis Turner, Dr. Lockhart Gibson and Dr. Gifford Croll, which resulted in the use of non-poisonous paint in State schools and to a less extent in private houses.

In my experience, the onset of chronic nephritis usually occurs about the age of puberty, and in spite of all care and attention, terminates the patient's life before the age of 25 years in at least two-thirds of the cases.

At present I have six youths receiving periodical treatment for chronic nephritis who have been followed up from attacks of plumbism in early infancy to their present ages, varying from twelve to twenty years.

Another point of view is the backward mentality of these children; on one occasion an officer of the Education Department paraded before me twelve boys who were well behind the scholastic attainments of the boys of their own age. In investigating the cause for their deficiency, we found that they had all been previously reported as suffering from plumbism.

During my period of service as Honorary Physician to the Mater Misericordiae Public Hospital, all cases of nulliparous women under twenty-five years suffering from chronic nephritis in my ward, gave a previous history of plumbism or admitted the nail-biting habit in their early youth.

Incidentally I have yet to see a case of plumbism that does not give a history of nail-biting or finger-sucking.

Any practitioner who has seen service in the Children's Hospital, Brisbane, knows of the great prevalence of plumbism in Queensland children that has occurred during the last twenty years, and I have no doubt in my personal

opinion that the excessive proportion of chronic nephritis in the youth of Queensland is due to the insidious action of lead absorbed in their childhood.

Yours, etc.,

JAMES L. SELWOOD,
M.B., B.S. (Melbourne).

Thomason's Buildings,
Fiveways,
South Brisbane,
December 14, 1933.

TREATMENT OF URETHRAL STRICTURE AND OF INTESTINAL OBSTRUCTION.

SIR: As comment on the letter of "Gen. Surgeon" in your issue of January 6, 1934, I should like to state that the operation of excision of urethral stricture is described and recommended in "Genito-Urinary Diseases" (Keyes, 1904), in "Burghard's System of Operative Surgery" (1909), in "Chetwood's Practice of Urology" (1913). It was practised by me as the routine treatment of all bad strictures and taught to be the ideal method of dealing with such strictures long before 1915. In cases where no guide could be passed, I found it easiest to enter the dilated pouch behind the stricture by cutting straight down on the tip of the left finger passed *per rectum* to the apex of the prostate and then removing every scrap of scar tissue before suturing the divided urethral ends over a soft catheter. The perineal tissues should always be left wide open.

Yours, etc.,

THOS. E. L. LAMBERT,
Honorary Surgeon, Melbourne
Hospital.

22, Collins Street,
Melbourne, C.I.,
January 15, 1934.

THE HEALTH OF THE PEOPLE OF PAPUA.

SIR: Letters from the Chief Medical Officer of the Territory of Papua on the subject of the health of the inhabitants are always welcome. He differs from me in regarding the short course of study for Papuans at Sydney—six months, I understand—as a more suitable undertaking than the four-year course provided at the Native Medical School at Suva, Fiji. He gives a reason—the fact that Sydney is in Australia and Papua is not. I should have thought that this was immaterial and that the fact that Fiji is within the British Empire was the important issue. He criticizes at length and severely a graduate of Suva for some utterance made in the journal known as the "Native Medical Practitioner". With this criticism I am not directly concerned, and no doubt the practitioner referred to will answer for himself.

As Dr. Strong states, I have no personal knowledge of Papua, and any information on the subject of its medical problems has been gained largely from an excellent lecture on that subject delivered by Dr. Strong in Melbourne and from numerous personal discussions with him. May I ask whether Dr. Strong has visited the Native Medical School at Suva. If he has not, I am sure he would be welcome. He would realize that the objective at Suva is to train responsible medical officers who understand the languages, customs and mode of thought of their countrymen. The Papuan effort is to train medical orderlies, useful enough in their way, but not comparable with the graduate at Suva.

My knowledge of the medical school at Suva is based on several visits to it, and my appreciation of the work is fortified by the unanimous opinion of the distinguished medical men known to me who have inspected it. Some of them referred to it in terms of high praise indeed.

As regards the malarial problem in Papua, it seems that it is usually mild in character, but my experience in other countries makes me cautious with regard to the ultimate effects of any form of malaria. As indicated in my previous letter the action taken in sending Papuans to obtain some knowledge is definitely a step in the right direction and may possibly be, as Dr. Strong indicates, only a beginning. But there is no comparison between a course of training for medical orderlies and the four-year course at Suva carried out in native conditions and under discipline. It seems to me a pity that in this and in so many other matters Australia does not cooperate with other parts of the Empire and appears to play a lone hand. I think my original proposal sound and useful. Let the Sydney experiment go on, but send two or four selected Papuans to Suva and then judge the final result.

Yours, etc.,

JAMES W. BARRETT.

103-105, Collins Street,
Melbourne,
January 22, 1934.

THE TASMANIAN BUSH FIRES.

SIR: Might I suggest, in view of the fact that a fund has been opened for the distressed settlers who lost their homes during the bush fires in Tasmania, that members who attended Congress in Hobart might like the opportunity of contributing to that fund, through your columns, as a gesture of their appreciation of the hospitality extended to them during their stay in that State?

Yours, etc.,

T.S.S. "Zealandia",
At Sea,
January 22, 1934.

"PHYSICIAN."

[Cheques may be sent to the office of the journal and will be acknowledged in these columns.—EDITOR.]

Books Received.

- A PRACTICAL MEDICAL DICTIONARY, by T. L. Stedman, A.M., M.D.; Twelfth Edition; 1933. London: Baillière, Tindall and Cox. Royal 8vo., pp. 1267, with numerous illustrations. Price: 35s. net.
- BRIGHT'S DISEASE: A CLINICAL HANDBOOK FOR PRACTITIONERS AND SENIOR STUDENTS, by J. N. Cruickshank, M.D., D.Sc., F.R.F.P.S., M.R.C.P.; 1933. Edinburgh: E. and S. Livingstone. Demy 8vo., pp. 218. Price: 10s. 6d. net.
- CHRONIC NASAL SINUSITIS AND ITS RELATION TO GENERAL MEDICINE (CHRONIC SINUSITIS AND SYSTEMIC SEPSIS), by P. Watson-Williams, with foreword by Sir Humphry D. Rolleston; Second Edition; 1933. Bristol: John Wright and Sons Limited. Royal 8vo., pp. 280, with illustrations. Price: 15s. net.
- HADWEN OF GLOUCESTER: MAN, MEDICO, MARTYR, by B. E. Kidd and M. E. Richards; 1933. London: John Murray. Crown 8vo., pp. 354, with illustrations. Price: 7s. 6d. net.
- EXPLORING THE UNCONSCIOUS: FURTHER EXERCISES IN APPLIED ANALYTICAL PSYCHOLOGY, by G. Groddeck, M.D.; 1933. London: The C. W. Daniel Company. Crown 8vo., pp. 224. Price: 7s. 6d. net.
- INFECTIONS OF THE HAND: A GUIDE TO THE SURGICAL TREATMENT OF ACUTE AND CHRONIC SUPPURATIVE PROCESSES IN THE FINGERS, HAND AND FOREARM, by A. E. Kanavel, M.D., Sc.D.; Sixth Edition; 1934. London: Baillière, Tindall and Cox. Royal 8vo., pp. 567, illustrated with 216 engravings. Price: 30s. net.
- FIRST AID TO THE TEETH, by K. Vyden; 1934. Australia: Angus and Robertson, Limited. Demy 16mo., pp. 54, with illustrations. Price: 1s. 8d. net.
- DIABETES: REASONS AND RECIPES, by E. E. Claxton, M.B., B.S., D.T.M. and H., with foreword by G. Graham, M.D., F.R.C.P.; 1933. London: John Lane The Bodley Head Limited. Crown 8vo., pp. 304, with illustrations. Price: 5s. net.

Medical Appointments.

Dr. T. J. P. Cotter (B.M.A.) has been appointed a Quarantine Officer pursuant to the provisions of the *Quarantine Act, 1908-1924*. He has also been appointed to act as Medical Inspector of Seamen and Medical Inspector of Shipping for the purposes of the *Navigation Act, 1912-1926*.

Sir Colin MacKenzie (B.M.A.), Dr. M. J. Holmes (B.M.A.), Dr. L. W. Nott and Dr. A. G. Butler (B.M.A.) have been appointed members of the Medical Board of the Territory for the Seat of Government, under the Medical Practitioners' Registration Ordinance, 1930-1933.

Dr. R. T. Allan has been appointed Junior Medical Officer, Class C and B, Professional Division, in the Lunacy Department, Hospitals for the Insane, Victoria, in pursuance of the provisions contained in the *Public Service Act, 1928*, and the *Lunacy Act, 1928*.

Dr. C. W. Luscombe (B.M.A.) has been appointed Government Medical Officer at Port Kembla, New South Wales.

Dr. H. Z. Stephens (B.M.A.) has been reappointed Acting Medical Officer of Health for the Municipality of Fingal, Tasmania.

Dr. C. M. Kingsmill has been appointed Medical Officer of Health for the Municipality of Portland, Tasmania.

Dr. W. Cawley (B.M.A.) has been appointed Deputy Quarantine Officer, Port Hedland, Western Australia, under the provisions of the *Quarantine Act, 1908-1924*.

The undermentioned have been elected members of the Dental Board of Western Australia until 1936: Dr. J. P. Ainslie (B.M.A.), Dr. H. J. Gray (B.M.A.) and Dr. J. P. Kenny (B.M.A.).

The undermentioned appointments have been made at the Adelaide Hospital, South Australia: Honorary Surgeon, Dr. H. R. Pomroy (B.M.A.); Honorary Assistant Surgeon, Dr. A. F. Hobbs (B.M.A.); Honorary Clinical Assistants to the Surgical Section, Dr. J. C. Mayo (B.M.A.) and Dr. G. H. Solomon (B.M.A.); Honorary Clinical Assistant to the Medical Section, Dr. A. C. Savage (B.M.A.).

Professor J. B. Cleland (B.M.A.) has been appointed a member of the Central Board of Health, under the provisions of the *Health Act, 1898*, South Australia.

Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, locum tenentes sought, etc., see "Advertiser," pages xviii, xix and xx.

CHILDREN'S HOSPITAL, CARLTON, VICTORIA: Assistant House Surgeon.

COMMONWEALTH DEPARTMENT OF HEALTH, CANBERRA, FEDERAL CAPITAL TERRITORY: Medical Assistant.

DEPARTMENT OF PUBLIC HEALTH, MELBOURNE, VICTORIA: District Health Officer.

LAUNCESTON PUBLIC HOSPITAL, LAUNCESTON, TASMANIA: Resident Medical Officers.

MELBOURNE HOSPITAL, MELBOURNE, VICTORIA: Senior Resident Medical Officer, Senior Resident Surgical Officer.

ROYAL SOCIETY OF MEDICINE, LONDON, ENGLAND: The Norman Gamble Fund and Research Prize.

SYDNEY HOSPITAL, SYDNEY, NEW SOUTH WALES: Honorary Officers.

THE NORMANTON DISTRICT HOSPITAL, NORMANTON, QUEENSLAND: Medical Officer.

Medical Appointments: Important Notice.

MEDICAL practitioners are requested not to apply for any appointment referred to in the following table without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, Tavistock Square, London, W.C.1.

BRANCH	APPOINTMENTS.
NEW SOUTH WALES: Honorary Secretary, 135, Macquarie Street, Sydney.	Australian Natives' Association. Ashfield and District United Friendly Societies' Dispensary. Balmain United Friendly Societies' Dispensary. Friendly Society Lodges at Casino. Leichhardt and Petersham United Friendly Societies' Dispensary. Manchester Unity Medical and Dispensing Institute, Oxford Street, Sydney. North Sydney Friendly Societies' Dispensary Limited. People's Prudential Assurance Company Limited. Phoenix Mutual Provident Society.
VICTORIAN: Honorary Secretary, Medical Society Hall, East Melbourne.	All Institutes or Medical Dispensaries. Australian Prudential Association, Proprietary, Limited. Mutual National Provident Club. National Provident Association. Hospital or other appointments outside Victoria.
QUEENSLAND: Honorary Secretary, B.M.A. Building, Adelaide Street, Brisbane.	Brisbane Associated Friendly Societies' Medical Institute. Chillagoe Hospital. Members accepting LODGE appointments and those desiring to accept appointments to any COUNTRY HOSPITAL are advised, in their own interests, to submit a copy of their agreement to the Council before signing. Lower Burdekin District Hospital, Ayr.
SOUTH AUSTRALIAN: Secretary, 207, North Terrace, Adelaide.	Combined Friendly Societies, Clarendon and Kangarilla districts. All Lodge Appointments in South Australia. All Contract Practice Appointments in South Australia.
WESTERN AUSTRALIAN: Honorary Secretary, 205, Saint George's Terrace, Perth.	All Contract Practice Appointments in Western Australia.
NEW ZEALAND (Wellington Division): Honorary Secretary, Wellington.	Friendly Society Lodges, Wellington, New Zealand.

Editorial Notices.

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